國際疾病分類(ICD) 10次 改定會議結果報告

(International Conference for the tenth Revision of the ICD)

1989. 10.

經濟企劃院 調査統計局

National Bureau of Statistics Economic Planning Board

차 례

Ⅰ. 제 10차 국제질병분류 개정회의 개요

1. 회의개최

2. 회의 목적 및 의제

Ⅱ. 회의토의 내용

Ⅲ. 한국대표의 활동

Ⅳ. 회의결과

Ⅴ. 참고자료

1. 회의일정

2. 회의참석 국가 및 국제기구

3. 회의 보고서 전문

1. 회의개최

1) 주 최 : WHO
2) 일 자 : 1989. 9. 26 - 10. 2 (7일간)
3) 장 소 : 스위스 제네바
4) 참 가 : 총 123 명

- 43개국 대표 : 91명
- 관련국제협회대표 : 14명
  (국제암협회,국제산부인과협회등)
- 국제기구(UN, WHO) : 18명

5) 한국대표 : 김 일현 (경제기획원 조사통계국 인구과장)

6) 회의개최 경과

제 1 차 회의 - 1900, 프랑스(파리)
제 2 차 회의 - 1910, 프랑스(파리)
.
.
.
제 9 차 회의 - 1975년, 스위스(제네바)
제 10차 회의 - 1989년, 스위스(제네바)

7) 회의목적 및 의제

가. 국제질병분류 연혁

- 국제질병분류(이하 ICD)는 전세계적으로 공통으로 사용하는 분류체계이며 이는 사망원인통계 질병통계 및 기타 보건통계의 근간이 됨.
- ICD는 1891년에 처음 작성되어 1900년에 제1차 개정된 후 매 10년 주기로 개정하는 것을 원칙으로 한바 현재 9차 개정(1975)에 이르고 있음.
- 10차 개정은 1990년에 이루어져 세계각국은 1993년 부터 적용하게 되어 있음.

나. 회의목적

· WHO는 그동안 10차 개정을 위해 3번에 걸친 개정안을작성, 수정을 하여 이번에 작성된 최종안(Final draft)에 대해 각국의 의견을 수렴한뒤 10차 개정을 완성할 예정임.

다. 회의의제

- 국제질병분류 10차 최종 개정안에 대한 전반적인 토의

Ⅱ. 회의토의 내용 : 별첨참조

Ⅲ. 한국대표활동

1. WHO는 ICD 10차 개정후 세계질명·사망력 조사를 실시하여 범세계적인 질병통계 및 사망원인통계를 생산할 계획에 대하여 이사업에 우리나라가 동참할 수 있도록 교섭함.

2. 우리나라의 인구동태통계(출산력통계, 사망통계)의 발전과정을 설명하고 특히, 최근 조사한 자료인 영아사망율이 선진국 수준임을 참석국가 및 WHO 관련 자문관들 에게 소개 하였음.

3. WHO data bank에 아국의 사망원인자료를 수록하기위한 Questionmaile form에 대한 송부절차문제 해결 및 ICD 관련 정보제공 요청(매년 동 설문서가 보사부로 송부되기 때문에 자료수록에 어려움이 있을 뿐 아니라 그외 ICD 및 사인통계에 대한 모든 정보가 경제기획원과는 단절되어 있어 사인통계 발전에 장애가 되어있음).

4. 우리나라 지역별 사망원인 구조분석 연구를 위해 WHO의 Project 협조요청.

Ⅳ. 회의결과

1. 동 회의에 상정된 최종개정안(final draft)의 대부분을 그대로 반영 하기로 결정함.

2. 그외 몇개의 사소한 부분은 WHO 본부 결정에 위임하기로 함.

V. 참고자료

1. 회의일정

일 자	일 정
'89. 9. 26(화)	개회식 임원선출 의제채택 국제질병분류(I.C.D)의 연혁 및 발전과정 소개 10차 개정 준비작업 설명
9. 27(수)	국제질병분류(I.C.D) 10차 개정에 대한 전반적인 개요 설명 ICD 10차 개정(안)의 각론 설명 (Chapter 1 - 21장)
9. 28(목)	모성사망 및 유아사망에 대한 정의·표준에 대한 논의 ICD 10차 개정 적용시 필요한 부호(coding)및 제표양식 문제 원사인 선정규칙 설명 및 사망 및 이환을 표시하는 제표양식 선택
9. 29(금)	Family Classification에 대한 논의 치료과정 (Medicine procedure)에 대해서 불구, 장애, 무능력의 분류 방법 및 적용 문제 토의 ICD 10차 개정을 지역사회 보건사업영역 까지 연계시키는 방법토의
9. 30(토)	10차 개정을 위한 timeschedule 설명 10차 개정판 발간(publication)에 관한 논의 10차 개정판의 각나라 적용시기 문제 10차 개정판의 적용을 위한 각종교육 program의 총괄적인 계획설명 기타 여러안건에 대한 토의
10. 2(월)	회의보고서 검토 및 채택 폐회식

2. 회의참석 국가 및 국제기관

	참석국명 및 국제 기구명	수(참석인원)
Nation	Angola,Australia,Bahamas,Belgium,Brazil,Bulgaria,Burundi, Canada,China,Cuba,Cyprus,Denmark,Finland,France,German-Demographic Republic,Germany Fderal Republic of,Hungary, Iceland,India,Indonesia,Israel,Italy,Japan,Kuwait,Luxembourg, Madagascar,Mali,Malta,Mexico,Mozambique,The Netherlands,Niger, Nicaragua,Portugal,Republic of Korea,Saudi Arabia,Senegal, Singapore,Spain,Sweden,Switzerland,Thailand,Uganda, Union of Soviet Socialist Republics(USSR),United Arab Emirates, United Kingdom, United State of America,	41 (92명)
Special-zed Age-ncies	International Council on Alcohol and Addictions, The International Society for Burn Injuries, International Epidemiological Association, Word Organization of National Colleges, Academies and Academic, International Federation of Gynecology and Obstetrics, Word Hypertension League, International Organization of Health Records Organizations, International Federation for Preventive and Social Medicine World Federation of Neurology, International Federation of Ophthalmological Societies World Federation of Parasitologists, World Phychiatric Association, Rehabilitation International, Council for International Organizations of Medical Sciences, International Union Against the Veneral Diseases and the Treponematones,	15 (15명)
Regional Office	WHO Regional Office for Africa, WHO Regional Office for the America, WHO Regional Office for Eastern Mediterraean, WHO Regional Office for Europe,	4 (6명)
UN사무국 및 WHO 자문관	Professor W. Janisch 외 10명.	11 명
합계		123 명

별 첨 : 회의토의내용

INTERNATIONAL CONFERENCE FOR THE TENTH REVISION OF THE ICD

(Geneva, 26 September - 2 October 1989)

1989.10

Economic Planning Board
National Bureau of Statistics
Republic of Korea

Ⅱ . 회의토의 내용

- 토 의 안 건 목 차 -

1. ICD 연혁 및 발전 과정

2. 그동안 추진 되어온 10차 개정작업 내역

3. 10차 개정(안)의 개요

4. 모성사망 및 유아사망과 관련된 기준 및 정의에 대하여

5. ICD 10차 개정의 사인 및 질병부호 선택준칙(selection rule) 및 제표양식

6. Family of Classification

7. Timetable for ICD - 10

1. ICD 연혁 및 발전과정

* Francosis Bossier de Lacroix (1706 - 1777)가 처음으로 질병을 체계적으로 분류하는 것을 시도. 그이후 William Cullen, John Graunt 등에 의해 질병 분류에 대한 발전이 있었음.

* 1853년 제 1 차 국제통계협회 (Internal Statistical Congress)에서 사망원인에 대한 단일분류가 필요하다고 강조되어 졌고 1955년 제 2 차 국제통계협회에서 Willam Farr 와 Marc d'Espine이 제각기 작성한 질병분류안을 동시에 제출 하였음.
  이를 바탕으로 1864년 138간이 분류표가 작성 되었으며 이는 다시 1874,1880, 1886년에 각각 수정 되어졌음.

  그러나 동분류표는 그때까지는 전세계적으로 사용되지 못한 상태였지만 이는 후에 국제사인표의 기초가 되었음.

* 1891년 Jacques Bertillon은 William Farr 와 Marc d'Espine이 각각 제출한 2개의 사인분류안을 통합시켰고, 이 통합안은 1893년 ISI(국제통계협회)에서 정식으로 채택되어져 이를 『Bertillon 사인분류안』 이라고 명명되어 많은 나라에서 사용 되어졌음.

* 또한 Betillon은 개정원칙을 10년 주기로 할것을 제안하여 1900년에 『Bertillo 사인분류안』을 개정하기 위한 국제회의 (International Conference)가 파리에서 개최된 이래 (1900년 ; 1차개정, 26개국 참가) 약 10년마다 개정이 주기적으로 이루어져 9차개정을 위한 국제회의는 1975년 제네바에서 개최되었던 것이 현재까지의 개정내역임 (1975년 ; 제9차개정, 46개국참가).

* WHO는 제6차 개정인 1946년 부터 ISI로부터 ICD개정 작업을 인수하여 사망원인 질병목록 및 원사인 선정을 국제규율(Rule)에 맞추어 발간해 왔다.

2. 그동안 추진 되어온 10차 개정 작업 내역

* ICD 9차 개정을 평가하고 10차 개정을 준비하는 과정에서 시간이 소모되어 10년 주기 개정 원칙을 벗어나 10차 개정은 1993년 부터 세계 각국이 사용할 수 있어 9차 개정과는 15년의 시차가 남.

* 10차 개정을 위한 첫 전문가 위원회는 1984년에 열려 10차 개정은 종전의 개정 원칙과 패턴을 바꾸지 않되 단 병명이 일련 번호로 이어지는 종전의 개정과는 달리 각 질병군 앞에 알파벳을 순서대로 첨가 시키도록 결정 하였는데, 이는

  a) 표시되는 알파벳은 그 질병군의 특징을 나타내기 때문에 쉽게 알아 볼 수 있고,
  b) 이로 말미암아 분류군의 범위가 더 넓어지게 되며 또한 장래 개정에 대한 분류변동의 최소화를 기하고
  c) 세 자리수로 표시되는 종전의 개정에 상응하기 위하여 앞에는 알파벳, 뒤의 두자리는 일련번호가 매겨지도록 하고, 더 상세한 분류가 필요하면 확대 시키기 위하는등 표시할 수있는 영역을 더 확대 하기 위하는데 그 목적이 있다.

* First draft 에서는 세 단위 항목의(three-digit categories) 질병명을 결정하고 Second draft에서는 4단위 항목의 질병명을 결정하는 등 이런 단계를 거쳐 이번 draft는 4번째이며 또한 Final draft로서 최종 확정될 예정임.

3. 10차 개정(안)의 개요

(1) Title

10차 개정의 title은 " International Statistical Classification of Diseases & Related Health Problems " 로 정함.

그러나 약칭은 종전대로 " ICD "로 약속하기로 함.

(2) Form

* 각 질병군에 대한 부호화

10차 개정은 알파벳 26자중 25자를 A부터 순서대로 사용하게 된다. 알파벳중 " U " 가 유일하게 사용되지 않는데 순서로 보면 Chapter 19와 Chapter 20 사이가 된다 (Chapter 19는 T로 시작하고 Chapter 20은 V로 시작하므로 " U " 가 생략 되었음).
이유는 장래 개정을 위한 여백으로 남겨 놓은 것임(장래 개정시 새로운 Chapter가 필요하게 되면 U를 사용할 수 있는 Chapter 19와 Chapter 20 사이에 새로운 분류를 넣을 수 있게 하기 위함.

* 3단위 항목 여백 문제

10차 개정은 3단위 항목 (three - character categories)의 25-30%가 여백으로 되어 있음. 이는 장래 개정작업시 추가되는 분류명이 있으면 동 여백을 사용하기 위함.
ex) B34(기관지 및 폐암)다음에 B37(사이누스암)으로 이어짐.
즉, B35, B36이 없으므로 다음 개정때 B35, B36을 새로 명명할 수 있게 한 것임.

* Chapter 배열 순위

Chapter 배열순위에 있어서 종전에는 Special group(특정연령층 및 특정성(性)에만 발생하는 질병군을 의미하며 그 예로 주산기사망, 임산부사망 등을 들 수 있다.)에 속하는 질병군과 Body system (인체의 해부학적 구조, 병의 기전등에 따라 분류된 질병군)의 배열이 서로 혼합되어 있었는데 이번 10차 개정은 Special group의 중요성을 강조하기 위해 Body system Chapter 뒤에 일괄적으로 배열 하기로 함.

Table - 1. 9차 · 10차 개정의 Special group에 속하는 Chapter 배열 비교

9 차 개 정		10 차 개 정 (안)	
대분류 번호	Chapter 배열	대분류 번호	Chapter 배열
Chapter 10	비뇨생식기계질환 (B,S) 1)	Chapter 14	비뇨생식기계질환 (B,S)
Chapter 11	임신,분만 및 산욕기합병증 (S,G) 2)	Chapter 15	임신, 분만, 산욕기질환 (S,G)
Chapter 12	피부및피하조직의질환(B,S)	Chapter 16	주산기에 관련된병태(S,G)
Chapter 13	근골격계 및 결합조직의 질환 (B,S)	Chapter 17	선천이상 (S,G)
Chapter 14	선천이상 (S,G)	·	·
Chapter 15	주산기에 관련된병태(S,G)	·	·
·	·	·	·
·	·	·	·
비 고	· Body system에 속하는 질병군과 Special group에 속하는 질병군이 서로 섞여 있음.	비 고	· Body system에 속하는 질병군들이 먼저 나열된 뒤에 Special group에 속하는 질병들이 뒤에 배열 되었음.

: Note : 1) B,S ; Body system
2) S,G ; Special group

(3) Content

* 세분되지 않는 3단위 항목 질병에 관한 부호화 문제

현존하는 질병명을 부호화 할때 질병항목의 code가 4단위 및 3단위로 혼합 구성되어 있어 data를 coding하는 과정에서 불일치가 생길 수 있다. 이럴경우 보통 세자리 끝나는 분류명도 4자리 분류명에 맞추어 coding 하는 것을 원칙으로 하고 있는데 이때 사용하는 "filler"(3단위를 4단위에 맞춰 coding하기 위한 채우기 부호)가 국제적으로 일치 하지 않을 경우 국제비교자료에 어려움이 있으므로 ICD 10차 개정에서는 표준 4단위 분류에 맞게 coding하는 방법으로 "filler"를 『X』 로 권고 하기로 함.

ex) ㉠ ○00 : 자궁외 임신
○00.0 : 복막의 자궁외 임신
○00.1 : 난관의 자궁외 임신
.
.
○00.9 : 상세불명의 자궁외 임신

㉡ ○03 : 자연유산
㉢ ○04 : 법적유산
} 4단위 분류가 없음.

이때 Coding 방법으로
난관의 자궁외 임신 : ○00.1

자연 유산 : ○03 [X] 로 한다.
→ filler로 사용.

* 3단위 항목의 증가

· 10차 개정의 3단위 항목수가 9차 개정때 보다 약 70% 증가하여 분량이 현저하게 증가하므로 정확한 coding을 하기위해 질병내용 설명에 중점을 둠.

* 정신질환 용어 해설에 대하여

· 정신질환(Mental disorder)에 대한 각종 어휘 해석이 9차 개정에 처음으로 시도되어 졌음. 10차 개정에는 더 완벽하고 상세한 용어 해석이 가능하도록 발전시켜 별책부록 으로 발간할 예정임.

9 차 개 정			10차 개정 (Final draft)		
일련번호	질병군의 명칭	ICD No	일련번호	질병군의 명칭	ICD No
I	감염성및기생충성 질환	001 - 139	I	감염성및기생충성 질환	A00 - A99 B00 - B99
II	신생물	140 - 208	II	신생물	C00 - C99 D00 - D49
III	내분비,영양대사 질환과 면역장애	240 - 279	III	혈액,조혈기질환 및면역장애질환	D50 - D99
IV	혈액 및 조혈기 질환	280 - 289	IV	내분비,영양대사 질환	E00 - E99
V	정신장애	290 - 319	V	정신 및 행동 발달장애	F00 - F99
VI	신경계및 감각기 질환	320 - 389	VI	신경계질환	G00 - G99
VII	순환기계의 질환	390 - 459	VII	눈및부속기질환	H00 - H59
VIII	호흡기계의 질환	460 - 519	VIII	귀 및 유양돌기 질환	H60 - H99
IX	소화기계의 질환	520 - 579	IX	순환기계질환	I00 - I99
X	비뇨생식기계의 질환	580 - 629	X	호흡기계질환	J00 - J99
XI	임신·분만 및	630 - 679	XI	소화기계질환	K00 - K99

9 차 개 정			10차 개정 (Final draft)		
일련번호	질병군의 명칭	ICD No	일련번호	질병군의 명칭	ICD No
XII	피부및피하조직의 질환	680 - 709	XII	피부및피하조직 질환	L00 - L99
XIII	근골격계및 결합조직의 질환	710 - 739	XIII	근골격계및 결합조직의 질환	M00 - M99
XIV	선천이상	740 - 759	XIV	비뇨 생식기계 질환	N00 - N99
XV	주산기에 관련된 병태	760 - 779	XV	임신, 분만, 산욕기 질환	O00 - O99
XVI	증상·징후 및 불명확한 병태	780 - 799	XVI	주산기에 관련된 병태	P00 - P99
XVII	손상 및 중독	800 - 999	XVII	선천기형,변형및 염색체이상	Q00 - Q99
			XVIII	증상.징후및그외 일반적으로 분류되지않는 비정상적인 임상및실험에서 나타난현상	R00 - R99
			XIX	손상·중독 및 외인의 기타결과	S00 - S99 T00 - T99
			XX	질병및 사망의 외부원인	V01 - V99 W00 - W99 X00 - X99 Y00 - Y99
			XXI	건강상태및보건서비스에영향을 주는 요인들	Z00 - Z99

국제질병명명학회(Internfational Nomenclature of Diseases)는 어떤 질병이나 증상으로 고통받는 사람이 그것을 묘사한 사람과는 서로 다르다는 이유로 소유격을 쓰는 'S형태의 인명이 붙는 질병은 사라져야 한다는 권고를 한바 있고 또 또 이것은 국제의학과학협회(The Council on International Organization of Medical Science)의 의견과도 일치한다.

그러나 아직까지 이 제안은 국제적으로 승인을 받지 못하였고, 현재 소유격 질병명이 많이 쓰이고 있다는 점에서 ICD 10차 개정은 동문제에 관하여서는 당분간 보류하기로 하고 종전대로 사용하기로 함.

* 수술후나 처치후에 나타나는 합병증

수술후(Post-surgical)나 처치후(Post-procedual)에 나타난 어떤 병태를 표시하기 위해서 독자적으로 적당한 Chapter에 분류하고 한편 원인을 밝히기 위한 분류인 『손상 및 중독의 Chapter』에도 같이 표기 하도록 함.

* 9차 개정에 사용되는 code표시에 대하여

이때까지 제출된 모든 10차 개정안(draft)에는 각 질병마다 10차 개정 code옆에 9차 개정때 쓰이던 code를 ( )로 표시하여 주었으나 표기상의 정확도에 문제가 있어 국제회의('89. 9. 26. 제네바회의)에 제출하는 final draft에는 이것을 삭제하기로 함.

* 9차·10차 개정에 사용되는 code끼리 서로 전환(conversion)되는 문제

9차 개정때 쓰이던 code와 10차 개정시 사용되게 될 code끼리 서로 전환(conversion) 될 수 있는 방법을 모색 하고 있음.
이는 시계열분석에 중요 자료가 되기 때문임.

그러나 이 전환문제는 원사인 선정규칙(selection rule)의 변동이 큰 과제인데 ICD 10차 개정 준비위원회는 10차 개정판중 Index편을 완성한 후 빠른 시일내에 동 문제를 해결할 예정 임.

* 각 Chapter (10차 개정은 21 Chapter로 구성)별 내용설명

- 설명생략 -

4. Standards and definitions related to maternal & child mortality (모성사망 및 유아사망과 관련된 기준 및 정의에 대하여)

* 1984년 10차 개정을 위한 준비위원회는 Geneva 회의에서 9차개정에 사용되고 있는 모성사망·유아사망 (신생아사망,주산기사망,태아사망등)에 대한 정의(definition)와 기준(standard)에 대한 수정·보완이 필요하다고 제안을 한바 이에 전문위원회는 1987년에 아래와 같은 안(案)을 제출 함.

(1) Child mortality에 포함되는 사망의 종류

* Child mortality와 관련된 사망으로 본 회의 자료 에서는 Fetal death (태아사망), Perinatal death (주산기사망), Neonatal death(신생아사망), Infant death (영아사망)등이 언급되고 있음.

A. Fetal death (태아사망)

* 태아사망을 Fetal death 에서 deadborn birth로 수정하는 것이 제안 되었으나 9차 개정때 fetal death로 사용되어진 점을 감안하여 fetal death 명칭옆에( )를 하여 deadborn birth 표기를 첨가 하기로 함.
  ex) fetal death (deadborn birth)

* Definition

  태아사망(fetal death ; deadborn birth)이라 함은 임신기간(duration of pregnancy)에 관계없이 수태(conception)에의한 생성물(product)이 그 모체로 부터 완전히 만출되기 전에 사망한 경우를 의미한다.
  이때 사망이란 이러한 분리 (seperation from mother)후에 탯줄의 절단 (cut of umbilical cord)이나 태반의 부착(attachment of placenta) 여하와는 관계없이 태아 (fetus)가 호흡을 하지 않거나 심장의 고동 (beating of the heart), 탯줄의 박동 (pulsation of the umbilical cord), 수의근의 명확한 운동 (definite movement of voluntary muscles)과 같은 생명의 증후를 나타내지 않는 상태이다.

(cf) 정의는 9차 개정때와 동일하나 deadborn birth 의 용어가 첨가된 것이 10차 개정안의 보완점임.

* Rate & Ratio

◎ Fetal death ratio (태아사망비)

$$\frac{\text{Fetal deaths}}{\text{Live births}} \times 1000$$

◎ Fetal death rate (태아사망율)

$$\frac{\text{Fetal deaths}}{\text{Total births(Live birth + fetal death)}} \times 1000$$

◎ Fetal death rate, weight-specific (체중별 태아사망율)

$$\frac{\text{체중 1000 g 이상의 태아사망자수}}{\text{체중 1000 g 이상의 총 출산아 (total births)}} \times 1000$$

B. Neonatal death (신생아사망)

* definition : 출생 (at birth)부터 생후 28일 이내에 사망하는 것.
* Type

· Early neonatal deaths (초기 샌생아 사망) :
출생부터 생후 7일(168시간) 이내에 사망.
· Late neonatal deaths (후기 신생아 사망) :
생후 7일 이후부터 28일 이내에 사망.

* Rate & Ratio

◎ Neonatal mortality rate (신생아사망율)

$$\frac{\text{Neonatal deaths}}{\text{Live births}} \times 1000$$

◎ Neonatal mortality rate, weight-specific (체중별 신생아 사망율)

$$\frac{\text{체중 1000g 이상의 신생아 사망자수}}{\text{체중 1000g 이상의 출생아 (live births)}} \times 1000$$

◎ Early neonatal mortality rate (초기 신생아 사망율)

$$\frac{\text{초기 신생아 사망자수}}{\text{출생아 (Live births)}} \times 1000$$

* Definition

임신주기(gestation) 22주(154일)이후에 발생하는 사산(fetal deaths)과 생후7일 이내 사망하는 초기 신생아 사망 (early neonatal death)을 포함한다.

* Rate and ratio

◎ Perinatal mortality ratio (주산기 사망비)

$$\frac{\text{사산수 + 초기 신생아 사망수}}{\text{출생아수 (live births)}} \times 1000$$

◎ Perinatal mortality rate (주산기 사망율)

$$\frac{\text{사산수 + 초기 신생아 사망수}}{\text{총 출산아수 (Total births)}} \times 1000$$

◎ Perinatal mortality rate, weight specific (체중별 주산기 사망율)

$$\frac{\text{체중 1000g 이상의 (사산아수 + 초기신생아 사망자수)}}{\text{체중 1000g 이상의 총 출산아 (total births)}} \times 1000$$

(참고) 주산기 사망진단서에 대하여

* 9차 개정때 주산기 사망진단서의 국제적 양식과 원사인 선정에 대한 기술방법이 처음으로 소개 되었다.
주산기 사망진단서를 사용하는 나라가 점차 확대 되어져 가고 있으며 사용하는 많은 나라들이 주산기 사망진단서를 생후 28일 이내 사망하는 신생아사망 까지 영역을 확대시켜 사용하는 것을 주장하고 있다 (현재 주산기 사망진단서는 생후 7일 이내 사망까지만 사용).

이런 주장이 받아 들여진다면 『주산기 사망진단서』라는 제목의 수정도 불가피하게 될것이다.

2. Maternal mortality (모성사망)

* 서론

- Maternal mortality (모성사망)에 대해서는 9차 개정에 언급이 되었으나 상세히 다루지 못한 사항이었고 그당시 이 항목에 대해서는 WHO는 특별한 권고 (recommendation)를 한바가 없었음.
- 10차 개정 준비 과정에서 모성사망에 대한 논의가 활발히 전개되었으나 아직까지 정의 및 범위에 대해서 결정 되어지지 않은 실정 이여서 이번 본 회의에서 다시 논의 되어질 과제로 남아 있는 실정임.
- 이때 까지 논의 되어진 정의 및 종류를 9차 개정과 비교해 보면 아래와 같다.

* Definition and Type

모성사망	9 차 개 정	10 차 개 정 (안)	비 고
1) 정의	- 임신기간, 또는 임신 부위에 관계없이 임신에 관련된 원인으로 임신중(pregnancy), 분만(dilivary) 및 분만후 42일(산욕기) 이내에 임산부가 사망하는 경우.	- 9차 개정시의 정의내용에 분만후 42일이라는 항목이 삭제 됨.	- 일반적으로 분만후 42일을 산욕기라 칭함. - 많은 나라에서 경험적으로 임산부가 산욕기가 지난 뒤에도 임신관련질환 으로 사망하는 예가 많다고 보고하기 때문임.
2) Type	ⓐDirect obstetric cause(직접산과적원인): 임신과 직접 관련된 합병증 때문에 사망하는경우.ex)임신중독증 ⓑIndirect obstetric cause : 임신중에 비산과적 질병이나 지병이 있어 "임신"이라는 생리작용 으로 악화되어 사망하는 경우. ex) 당뇨병, 폐염	ⓐDirect obsetetric cause (직접산과적원인): 이하동일. ⓑIndirect obsetric cause : 이하동일 ⓒNon-obstetric cause (비산과적 원인) : 임신과 관련된 직·간접 질병이 아니라 위에서 언급한 기간동안 임산부가 사고로 인하여 사망하는 경우.	- 그러나 국제비교를 용이하게 하기 위하여 모성사망율(rate), 사망비(ratio)계산에는종전대로 산욕기(42일) 이내의 사망자만을 포함 하기로 함. (산욕기 이후의 사망자료는 국제적인 분석 자료에 쓰기 위함임.) - 비산과적 원인을 포함시키므로 모성사망 이라는 개념 정립에 논란이 많을 것임.

◎ Maternal mortality ratio (모성사망비)

$$\frac{\text{모성사망자수 (산과적원인 + 비산과적원인 포함)}}{\text{출생아 (Live births)}} \times K$$

◎ Matenal mortality rate (모성사망율)

$$\frac{\text{모성사망자수 (산과적원인 + 비산과적원인 포함)}}{\text{총 출산아 (Total births)}} \times K$$

◎ Obstetric mortality ratio (산과적사망비)

$$\frac{\text{산과적 원인으로만 사망한 사망자수 (직접+간접)}}{\text{출생아수 (live births)}} \times K$$

◎ Obstetric mortality rate (산과적사망율)

$$\frac{\text{산과적 원인으로만 사망한 사망자수 (직접+간접)}}{\text{총 출산아수 (Total births)}} \times K$$

◎ Direct obstetric mortality ratio (직접산과적 사망비)

$$\frac{\text{직접산과적 원인으로만 사망한 수}}{\text{출생아수 (live births)}} \times K$$

◎ Direct obstetric mortality rate (직접산과적 사망율)

$$\frac{\text{직접산과적 원인으로만 사망한 수}}{\text{총 출산아수 (Total births)}} \times K$$

(여기서 K는 각국의 사정에 따라 1000, 10000, 100000등으로 사용할 수 있다.)

* Definition

a. 출생 (live birth) : 임신기간에 관계없이 수태 (conception)에 의한 생성물(product)이 모체로부터 적출되어 탯줄의 절단이나 태반의 부착여부와는 관계없이 호흡을 하거나 심장고동,탯줄의 박동, 수의근의 명확한 운동등과 같은 생명의 증후를 나타내는것.

b. 출생시 체중 (Birth weight) : 분만직후 신생아가 가지는 최초의 체중.

c. 저체중 (Low birth weight) : 체중이 2500g 이하 (2499g 까지 포함) .

d. Very low birth weight : 체중이 1500g 이하 (1499g 까지 포함).

e. Extremely low birth weight : 체중이 1000g 이하 (999g 까지 포함).

f. 임신연령 (gestational age) : 임신기간은 마지막 정상 월경기의 첫날부터 가산 된다. 임신연령은 완전일수(completed days) 또는 완전주수(completed weeks)로 표기된다.
ex) 마지막 정상 월경기의 개시일후 280-286일이 경과된 경우는 임신 40주로 본다.

g. 임신만기전 (Pre-term) : 임신주기가 37주 미만(259일 미만)을 말함.

h. 임신만기 (Term) : 임신주기가 37주 부터 42주 미만일때(259-293일).

i. 임신만기후 (Post-term) : 임신주기가 42주 이상 일때 (294일 이상).

5. Coding and Selection and tabulation lists for ICD-10 (ICD 10 차 개정의 사인 및 질병 부호 선택 준칙 및 제표양식)

(1) Mortality coding and selection rules (사망통계제표를 위한 사인선정준칙)

우선 ICD 9차에 적용 되었던 원사인 선정을 위한 준칙을 소개하면 다음과 같다.

일반준칙(General rule) : 사망진단서 제 1 부의 최하단에 단독으로 기재되어 있는 상황을 선정한다. · · · 이하생략

준칙 1 (Rule 1) ; 설명 이하 생략

.
.
.

준칙 4 (Rule 4) ; 노쇠에 관한사항
선택된 원사인이 797(노쇠)가 되나 그외 다른 질병명이 명시되어 있으면 노쇠 대신에 다른 또하나의 병을 선택한다.

준칙 5 (Rule 5) ; 진단명이 불명확한 조건 (Ill-defined condition)
일차 선택된 원사인이 위에서 언급한 『진단이 불명확한 상태』인 『780 - 796』 사이에 속하는 질병이고 또 다른 질병명(진단이 확실)이 아래에 표기되어 있으면 병명이 확실한 것을 선택한다.

준칙 10 (Rule 10) ; 후유증에 관한것.

.
.
.

준칙 11 (Rule 11) ; 만성폐염, 인플루엔자 및 모체측 병태 (Old pneumonia, influenza and maternal condition) - 이하생략-

준칙 12 (Rule 12) ; 의학적 처치 도중의 과실 및 불의의 사고 - 이하생략-

.
.

이하생략

여기서 10차 개정은 아래과 같은 수정 제안을 권고 함.

* 일반준칙(General rule)의 용어를 "General principle"로 고친다.
* 준칙 4 와 준칙 5 는 서로 합친다.
* 준칙 11 을 삭제하여 준칙 10 의 범위안에 준칙 11 의 내용을 포함 시킨다.
* 준칙 12 도 삭제한다.
* 그외 몇가지 사소한 원사인이나 중간 사인에 대한 수정 설명을 덧붙이기로 함.

* 질병명은 입원시, 치료과정중 일때, 퇴원할 때의 진단명이 서로 다를 수 있기 때문에 부호준칙(coding rule)이 매우 어려워 아직까지 준칙이 결정되지 못 하고 있음.
* 한편 전문위원회 에서는 질병부호를 위해 relevant coding rule (적절한 병명 하나를 골라서 부호 하는것)을 추천한 바 있음.
* 이에 '88년 11월 제네바 회의에서 질병통계 제표양식으로 2개의 제표(안)를 작성 하였음.

(3) List for tabulation of mortality and morbility(간이사망통계제표 및 질병통계제표)

* WHO와 UN의 통계사무국 (Statitical office)은 서로 협력하여 10차 개정부터 사용할 수 있는 보건 및 인구학적인 면에서 국제비교가 가능 하도록 사망통계 및 질병통계에 대한 간이제표(Short list)를 고안 하기로 함.
* 이에 간이제표 작성의 기본 원칙으로 다음의 사항을 참고 하기로 함.

  · 비슷한 성질 끼리의 질병명은 의미가 같은 범위안에서 묶어 하나의 항목으로 제표한다.
  · 종전(8차나 9차개정)에 쓰이던 사망제표와 비교 가능 하도록 작성한다.
  · 작성될 간이제표는 특별한 목적을 위해서는 더 상세히 분류될 수 있도록 하고, 반대로 상세히 분류된 자료는 간이제표에 맞게 묶을 수도 있게 고안한다.
  · 몇몇개의 나라들을 묶어서 지역별로(아시아, 유럽등), 특성별로(개발도상국, 선진국등) 비교 가능 할 수 있도록 제표양식에 쓰이는 일련번호는 각 나라마다 일치하도록 한다.
  · 작성될 새 간이제표 양식에는 서로 다른 상황에서 사망원인 순위를 할수 있도록 사인순위 선택항목이 총망라 되도록 고안한다.

* 새로 작성될 간이제표 작성을 위한 방법으로는 다음과 같은 사항을 참고 하기로 함.

  · 9차 개정에서 사용되었던 50 MOrtality list와 307 기본 분류표의 단점을 보완하기로 함.

* 모두 6개의 tabulation list가 있음.

* 일반 사망 관련제표

  - General mortality short list (75항목)
  - Mortality tabulation short list (100항목)

* 영아 사망 관련제표

  - General infant & child mortality short list (50항목)
  - Infant & child mortality tabulation short list (66항목)

* 질병통계를 위한 제표

  - Short tabulation list for morbidity (각 19 Chapter title 아래 51개 병명이 나열되어 있음.)
  - Intermediate tabulation list for morbidity (각 19 Chapter title 아래 298개의 병명이 나열되어 있음.)

* 새간이제표 작성과 더불어 WHO는 다음과 같은 사항을 권고 하기로 함.

  a. 각 나라들은 10차 개정이 이루어지면 최소한 3단위항목(three-digit)까지는 자료를 생산하여 발표하도록 한다.
  b. 각 나라들은 WHO data bank에 3단위 항목 자료를 수록할 수 있게 협조한다.
  c. 3단위 항목의 자료를 제출할 수 없는 나라들은 최소한 77간이 사인분류표 (77 The Mortality Short List)와 54 영아 사망 분류표 (54 Infant Mortality Short List)는 반드시 제출할 수 있어야한다.
  d. 또 WHO 및 UN에서 발간되는 간행물에 사망원인에 관련되는 자료를 표시할 때에는 75 간이 사인분류표 및 50 간이 영아사망 분류표에 맞추어 발간한다.
  e. 10차 개정판에는 사마원인 순위를 간이 분류항목에 의거하여 선택할 수 있는 방법과 각 나라들이 사망자료를 수집, 제표 분석하는 방법 및 잔여항목 처리에 대한 지침을 제공하는 도움말을 첨가시키도록 한다.

(1) Concept

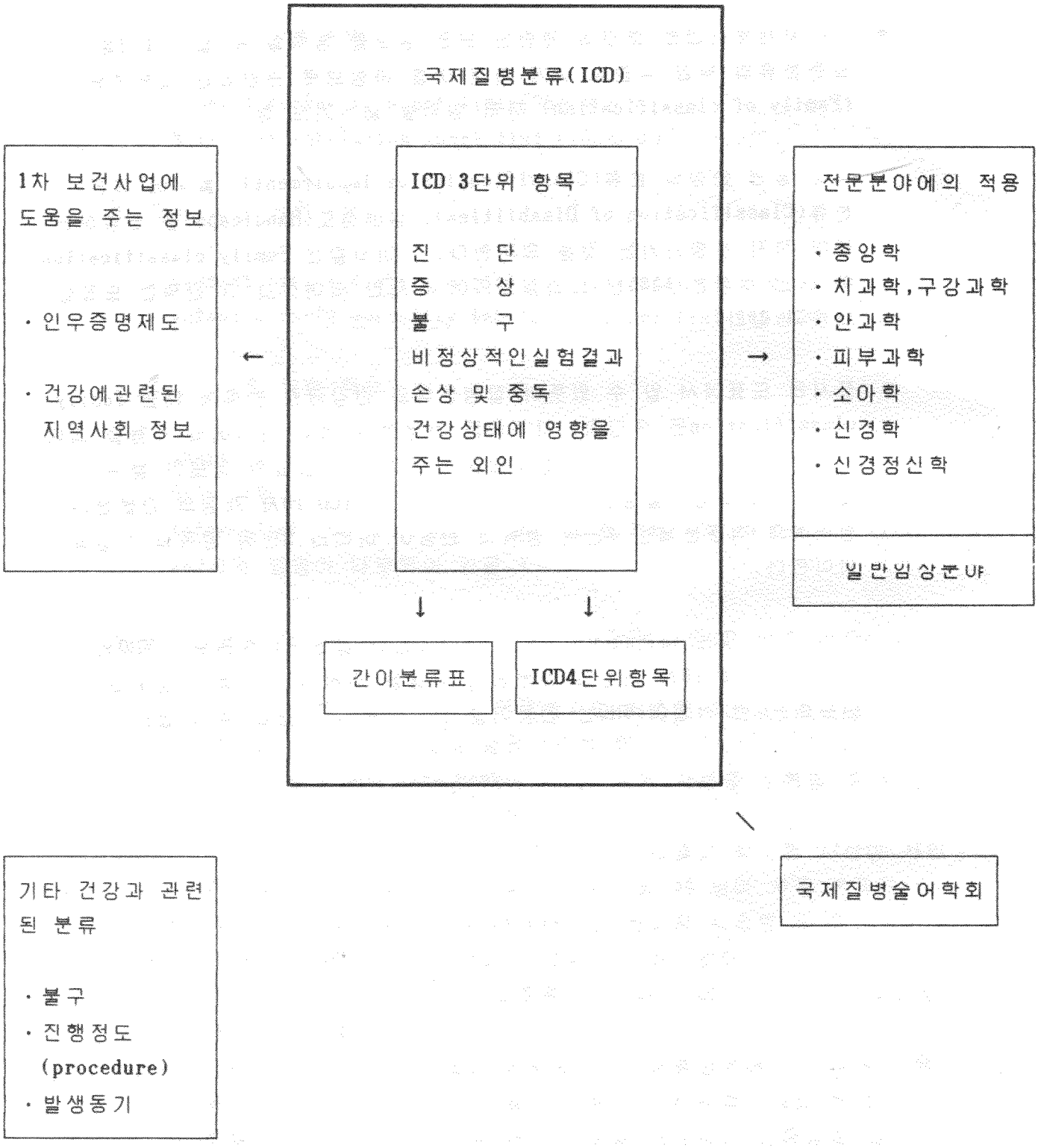
* ICD 자체로서만은 보건과 관련된 모든 정보를 충족할 수 없고 ICD를 모든분류의 핵심 역할을 하게 하여 이를 바탕으로 관련있는 모든분류 (Family of classification) 까지 영역을 넓히기로 함.

  예를 들면 손상의 분류(Classification of Impairment), 불구에 대한 분류(Classification of Disablities), 장애정도(Handicaps)를 분류하는 분야 까지 포함시키는 것을 의미한다. 이와같은 Family classification 에 대한 구상은 1985년 브라질회의에서 제안 되어졌고 그 간략한 도표는 다음과 같다.

* 표시된 도표에서 알 수 있듯이 질병분류와 건강관련 분류에 대한 family classification은 종양학, 치과학등 전문분야 영역 까지에의 적용을 의미하며 본 ICD에서 알수있는 정보외에 보건사업의 중요한 정보인 불구, 장애, 치료과정, 발생원인등도 포함되었는데 ICD 10차 개정의 전문분야 영역에의 적용문제는 4단위 항목의 변동이 아니라 5단위 항목의 신설을 의미한다.

  이에 이미 많은 나라에서는 비정부단체(협회 같은곳) 주관으로 WHO의 도움아래 ICD 10차 개정의 전문분야 적용을 위하여 준비를 시행하고 있으며 이런 작업에 WHO는 전문기술적인 자문과 도움을 주고 있다.

Family of diseases & health - related classification



* International Classification of Impairment, Disabilities, and Handicaps는 1980년에 처음 공표된 후에 느리지만 점차 각 나라로 부터 적용되고 있다.
여기서 권고된 불구 및 장애에 대한 정의는 동분야의 연구 와 문제해결을 위 개념 정립에 주요하게 쓰이고 있어 처음에는 8개국으로만 번역 되었으나 점차소개가 확산됨에 따라 각국에서 번역하여 쓰여지고 있다.
이는 재활전문가 장애정도 및 과정의 평가에 동분류는 기초가 되며 이를 바탕으로 정책수립에 요긴하게 사용한다.

* 부호화(coding)는 시간이 걸리고, 분류(classification)는 다른 분류에 비해 신중하게 다루어져야 하는 어려움이 있다.
이런 이유로 ICIDH 분류상의 어떤부분은 ICD에 맞춰 적절하게 등급을 매겨 주어야 하는문제, 몇몇 어휘에 대한 어의(語意)의 명확성 문제등이 과제로 남아있다.

* 현재 추진하고 있는 ICD 10차 개정의 timeschedule에 맞춰 동 ICIDH 분류도 완성하려고 노력하지만 실현이 어려운 실정임.

(3) Procedure in medicine (치료과정)

* 위원회는 10차 개정에 치료과정 중 수술과정 (Surpical procedure)의 개요 정도만 이라도 ICPM(International Classification of Procedure in Medicine)을 적용하는 것을 권고하고 있음.

7. Timetable for ICD - 10

(1) Publication of ICD-10

* WHO 회원국중 많은 나라들이 ICD 9차 개정을 전혀 적용(adoption)하지 않았다. 그 이유는 9차 개정 권고안에 따른 자료수집, 부호화(coding), 제표(tabulation) 및 분석하는데 필요한 제도장치가 미비했기때문임.

* 9차 개정의 3단위 항목은 1178개이고 10차 개정은 2001개로써 약 70%의 증가를 가져 왔으나(4단위 항목의 양적 증가 비교는 아직 안 되어 있음) 10차개정 채택될 alphanumeric coding (앞에는 알파벳, 뒤의 두자리는 아라비아 숫자로 표기 하는것) 방법은 코딩분량을 2배 이상 감당할 수 있음.

* 그러나 비교적 많은 회원국들은 이러한 상세한 분류를 할 수도 없을 뿐 아니라 할 필요도 느끼지 않는 실정이고, 또, 9차 개정의 기본분류표(307항목)는 제표양식 으로는 너무 광범위 하다는 지적에 대해서 WHO는 이번 10차 개정에는 참고 설명이나 색인목록은 포함 시키지 않고 3단위 항목만 설명하는 용어집을 별도의 단행본으로 출판할 예정이며 이 단행본에는 원사인선정준칙, 특수제표 list 및 기타 필요한 해석은 포함 됨.

2) Training in the uses of ICD-10

* 10차 개정 적용에 필요한 training은 9차 개정때와 마찬가지로 각 Regional Office(세계를 몇개의 지역구로 나눈것. 한국은 서태평양 지역구에 속함)의 관할하에 이루어 지게 됨.

* Training course는 ICD 10차 개정의 적용 년도가 1993년 이므로 1991년, 1992년에 있을 예정이나 이용자(User)를 위한 기본 훈련 준비물은(basic training materials) WHO의 예산 및 인력부족으로 1993년 이후에나 가능.

* 10차 개정 적용에 대한 국제훈련(International training course)에 참가하는 참석자들은(각 국가 대표들) 관련전문지식과 어학실력이 갖추어진자로 제한하기로 하고 그 자격 심사는 각 Regional Office가 담당하기로 함.
왜냐하면 international training course에 참석한 각 나라대표들은 자기나라로 돌아가서 다시 전수교육을 전달해야 하기 때문임.

아울러 인구동태통계를 생산하는 기관에서 사망원인을 coding할때 필요한 별도의 지침서도 마련할 예정 임.

3. 회의보고서 전문

ORIGINAL : ENGLISH

INTERNATIONAL CONFERENCE FOR THE TENTH REVISION
OF THE INTERNATIONAL CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

Draft Report

The International Conference for the Tenth Revision of the International Classification of Diseases convened by the World Health Organization met at WHO Headquarters in Geneva from 26 September to 2 October 1989. The Conference was attended by delegates from 43 Member States (See Annex VI).

1. The Conference was opened by Dr J.-P. Jardel, Assistant Director-General, on behalf of the Director-General. Dr Jardel spoke of the extensive consultations and preparatory work which had gone into the revision proposals and necessitated longer than usual interval between revisions. He noted that the Tenth Revision o the ICD would have a new title - "The International Statistical Classification of Diseases and Related Health Problems" - to emphasize its statistical purpose and reflect the widening of its scope. He also mentioned the new alphanumeric structure to improve the balance of its content and leave room for future additions and the intention to produce an ICD-10 manual of three character categories and alphabetical index for use where the more complex, detailed four character version would be inappropriate.

2. The Conference elected the following officers:

Chairman:	Dr R. Wells (Australia)
Vice-Chairmen:	Dr H. Bay-Nielsen (Denmark)
	Dr R. Braun (German Democratic Republic)
	Mr R. Israel (U.S.A.)
	Dr R. Laurenti (Brazil)
Rapporteurs:	Ms E. Taylor (Canada)
	Dr P. Maguin (France)

3. The Conference adopted an agenda dealing with the proposed content of the chapters of the Tenth Revision of the International Classification of Diseases with associated material to be incorporated in the published Manual, the process of its introduction with associated classifications and related matters.

4. History and development of uses of the ICD

The Conference was reminded of the impressive history and evolution of a statistical classification whose roots dated from the 18th century. Early revisions of the classification were concerned only with causes of death with an extension to the inclusion of non-fatal diseases occurring at the Sixth Revision. This extension continued through the Ninth Revision with certain innovations being introduced to meet the statistical needs of widely differing organizations. In addition, at the time of the Ninth Revision recommendations were adopted for supplementary classifications of Procedures in Medicine and Impairments, Disabilities and Handicaps.

5. Review of activities in the preparation of proposals for the Tenth Revision

The proposals before the Conference were the product of a vast amount of activity at WHO and around the world. The programme of work had been guided by regular meetings of the Heads of WHO Collaborating Centres for Classification of Diseases. Policy guidance was provided by some specially arranged meetings and by the Expert Committee on ICD-10 which met twice, in 1984 and 1987, to make decisions on the direction the work should take and the form of the final proposals.

There had been much preparatory activity devoted to a radical review of the suitability of the present structure of ICD, a statistical classification of diseases and other health problems, to serve for a wide variety of different mortality and health-care data. Ways of stabilizing the coding system to minimize disruption at successive revisions had been investigated as had the possibility of providing a better balance between the contents of the chapters of ICD.

Even with a new structure, it was plain that one classification could not cope with the extremes of requirements and the concept was developed of a "family" of classifications, with the main ICD, as the "core", covering the centre ground of needs of traditional mortality and morbidity statistics, while needs for more, or less, detailed or different classifications and associated matters would be dealt with by other members of the "family".

Various alternative models for the structure of ICD were investigated by the Collaborating Centres, but it was found that each had unsatisfactory features and none had sufficient advantages over the existing structure to justify replacing it. Special meetings held to evaluate ICD-9 confirmed that although some would-be users found the present structure of ICD unsuitable, there was a large body of satisfied users who considered it had many inherent strengths whatever its apparent inconsistencies and wished it to continue in its present form.

Various schemes involving alphanumeric notation of the present structure were tried out to produce a coding frame giving better balance to the chapters and with sufficient space to allow future changes without disrupting present codes.

Decisions made on these matters paved the way for the preparation of successive drafts of proposals for the revision of the chapters of ICD-10. These were twice circulated to member countries for comment as well as being reviewed by other interested bodies, meetings of Centre Heads, and the Expert Committee. A large number of international professional specialist associations, individual specialists and experts, other WHO headquarters units and regional offices gave advice and guidance to the WHO service responsible for ICD and to the Collaborating Centres in the preparation of the proposals for the revision of the chapters of ICD and for the associated material placed before the Conference. WHO acknowledged this assistance with gratitude.

6. Tenth Revision of the ICD (ICD-10)

6.1 ICD-10 - General presentation of form and content

The main innovation was the proposal to adopt an alphanumeric coding scheme of one letter and three numbers at the four-character level. This had the effect of more than doubling the size of the coding frame in comparison to the Ninth Revision and enabled the vast majority of chapters to be assigned a unique letter or group of letters, each capable of providing 100 three-character categories. Of the 26 available letters 25 have been used, the letter U being left vacant for local and research purposes and for possible interim solutions to major classification difficulties at the international level.

As a matter of policy a number of three-character categories were left vacant for future expansion and revision. The number of categories left vacant varied among the chapters, the chapters with a primarily anatomical axis of classification having fewer vacant categories as it was considered that future changes in these chapters would be more limited in nature.

ICD-9 contains 17 chapters plus two supplementary classifications; the Supplementary classification of External causes of injury and poisoning (the E code) and the Supplementary classification of Factors influencing health status and contact with health services (the V code). As recommended by the Preparatory meeting on ICD-10 and endorsed by subsequent meetings these two chapters are no longer considered to be supplementary but are included as a part of the core classification.

As regards the order of entry of the chapters, this begins in the same way as in ICD-9, however, in order to make effective use of the available space, disorders of the immune mechanism have been included with diseases of the blood and blood-forming organs whereas in ICD-9 they were included with endocrine, nutritional and metabolic diseases.

The new chapter of Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism now follows the Neoplasms chapter with which it shares the letter D.

During elaboration of early drafts of the chapter of Diseases of the nervous system and sense organs it soon became clear that it would not be possible to accommodate all the required detail under one letter in 100 three-character categories. It was decided, therefore, to create 3 separate chapters - Diseases of the nervous system having the letter G, and the 2 chapters for Diseases of the eye and adnexa and Diseases of the ear and mastoid process sharing the letter H.

Also, the chapters of Diseases of the genitourinary system; Pregnancy, childbirth and the puerperium; Certain conditions originating in the perinatal period, and Congenital malformations, deformations and chromosomal abnormalities have been brought together as contiguous chapters XIV to XVII.

With the inclusion of the former supplementary classifications as a part of the core classification and the creation of two new chapters the total number of chapters in ICD-10 becomes 21.

The titles of some chapters have been amended in order to give a better indication of their content.

It is not usual for draft proposals for revision of the ICD to be the subject of field-testing as they are the result of 10, or in the case of ICD-10, 15 years experience in the use of the previous revision. Where radical changes are proposed, however, field-testing is appropriate. This has been the case for chapters:

V Mental and behavioural disorders
XIX Injury, poisoning and certain other consequences of external causes
XX External causes of morbidity and mortality

and, while the changes have not been major, the chapter of Neoplasms has also been subject to some field testing.

New features that have been introduced to the classification are as follows:

The exclusion notes at the beginning of each chapter have been expanded to explain the relative hierarchy of chapters. These now make it clear that the "special groups" chapters have priority of assignment over the organ/system chapters and that, within the special groups, pregnancy, childbirth and the puerperium and certain conditions originating in the perinatal period, have priority over the others.

Also, at the beginning of each chapter there appears an overview of the blocks of three-character categories and, where relevant, the asterisk categories. This makes the structure of the chapters transparent and facilitates the use of the asterisk categories.

The notes that appear at the various categories are those that apply to <u>all</u> uses of the classification. If a note is appropriate only to morbidity or only to mortality then it appears only in the special notes accompanying the morbidity coding rules or mortality coding rules.

ICD-9 identified a certain number of conditions as being drug-induced. This approach has been extended in the draft proposals for the Tenth Revision and a large number of such conditions are now separately identified.

An important innovation is the creation towards the end of certain chapters of a category for postsurgical and postprocedural disorders. These identify important conditions which arise after a procedure and which form a medical care problem in their own right. These include such examples as endocrine and metabolic diseases following ablation of an organ and other specific conditions such as post-gastrectomy dumping syndrome. Conditions which may arise as a result of any procedure continue to be classified with complications of medical care in the chapter of Injury, poisoning and certain other consequences of external causes, Chapter XIX.

Another change is that, in ICD-9, the four-digit titles often had to be read in conjunction with the three digit titles to ascertain the full meaning and intent of the subcategory. In the draft presented to the Conference the titles are almost invariably complete and stand alone.

The dual classification scheme for etiology and manifestation, known as the dagger and asterisk system, that was introduced at ICD-9 has been the subject of a certain amount of criticism. This criticism related mainly to the fact that the classification frequently contained a mixture of manifestation and other information at the three and four-digit levels and the same diagnostic labels sometimes appeared under both axes. Also, the system was not considered by many to be sufficiently comprehensive.

To overcome these problems, in the draft proposal for the Tenth Revision, the asterisk information is contained in 82 homogeneous three-character categories. This approach enables those diagnostic statements containing information about both a generalised underlying disease process and a manifestation or complication in a particular organ or site to receive two codes which will permit retrieval or tabulation according to either axis.

The dual classification system is applied to conditions which are not recognized constituents of a disease as it first presents but which arise later as a manifestation or complication in another part of the body producing a condition, which, as a medical-care problem in its own right would be classified to another chapter of the ICD.

These characteristics of the proposed Tenth Revision were accepted by the Conference.

6.2 ICD-10 - Presentation of chapters

Each chapter (as listed in Annex I) was introduced to the Conference with a presentation on changes introduced from the Ninth Revision and some background related to certain innovations. Conference participants agreed to submit questions and comments regarding minor technical changes to the draft proposals to the Secretariat for follow-up and subsequent modification of the draft chapters as presented. Some significant issues related to changes in chapter structure and content were discussed by the Conference and agreement reached on follow-up and modification by the Secretariat (Annex VII).

7. Standards and definitions related to maternal and child health

The Conference considered with interest the recommended definitions, standards and reporting requirements for ICD-10 related to maternal mortality and to fetal, perinatal, neonatal and infant mortality.[1] These recommendations were the result of a series of special meetings and consultations and were directed towards improving international comparability.

The Conference agreed that it was suitable to retain the definitions of live birth and fetal death as they appear in the Ninth Revision.

After discussion, and based on recommendations of a working party convened during the Conference, the Conference also agreed on the retention of the definition of maternal death as it appears in the Ninth Revision.

[1] WHO/ICD10/REV.CONF/89.11

formulated by the special working party and are included in Annex II. The Conference

RECOMMENDS that countries consider the inclusion on death certificates of a question regarding current pregnancy or pregnancy within one year preceding death to facilitate and improve international comparability of maternal mortality data.

The Conference agreed that, since the number of live births was more universally available than total births, it should be used as the denominator in all ratios related to maternal mortality.

With respect to perinatal, neonatal and infant mortality, it was strongly advised that rates calculated and published based on birth cohorts should be so identified and differentiated.

The Conference confirmed the practice of expressing age in completed units of time and thus expressing the first day of life as day zero.

The Conference

RECOMMENDS the inclusion in ICD-10 of the definitions, standards and reporting requirements related to maternal mortality and to fetal, perinatal, neonatal and infant mortality as contained in Annex II.

8. Coding and selection rules and tabulation lists for ICD-10

8.1 ICD-10 Coding and selection rules for mortality

The Conference was made aware of an extensive review process regarding the selection and modification rules for underlying cause of death and the associated notes as presented in ICD-9. This review had resulted in several recommended changes to the rules as well as extensive changes to the notes.[2]

[2] WHO/ICD10/REV.CONF/89.13

RECOMMENDS that the rules for selection of cause of death for primary mortality tabulation as they appear in the Ninth Revision be replaced in the Tenth Revision by those set out in Annex III.

The Conference was informed that additional notes for use in underlying cause coding and the interpretation of entries of causes of death had been drafted and were being reviewed. As these notes were intended to improve consistency in coding, the Conference agreed that they would also be incorporated in the Tenth Revision.

The Conference noted with interest the use of multiple condition coding and analysis in relation to causes of death. The Conference expressed encouragement of such activities but did not recommend that ICD-10 should contain any particular rules or methods of analysis to be followed.

In considering the international form of medical certificate of cause of death, the Expert Committee on ICD-10 recognized that with an aging population frequently dying with multiple pathologies and the effect of therapeutic interventions increasing the number of possible statements between the underlying cause and the direct cause of death, an increasing number of conditions were being entered on death certificates in many countries. This led the Committee to recommend the inclusion of an additional line (d) in Part I of the certificate.

Based on the recommendation of the Expert Committee, the Conference

RECOMMENDS that, where a need has been identified, countries consider the possibility of the additional line (d) in Part I of the medical certificate of cause of death.

8.2 ICD-10 Coding and selection rules for morbidity

For the first time, ICD-9 contained guidance on recording and coding for morbidity and specifically in the selection of a single cause for presentation of morbidity statistics. Experience gained through the use of the definitions and rules as presented in ICD-9 had proved their usefulness and generated requests for clarification of the definitions and further elaboration regarding the recording of diagnostic information by health care practitioners as well as for increased guidance in dealing with specific problem situations.

The Conference endorsed the recommendations of the Conference for the Ninth Revision of ICD about the condition to be used for single cause analysis of episodes of health care, and its view that, where practicable, multiple-cause analysis should be undertaken to supplement the routine data. The Conference stressed that the guidance provided in ICD-10 should make clear that much of such guidance was applicable only when the tabulation of a "main condition" for an episode was appropriate and when the concept of an "episode" per se was relevant to the way in which the data collection was organized.

The Conference accordingly

RECOMMENDS that additional guidance on recording and coding of morbidity on the lines of that set out in Annex IV should be included in the Tenth Revision. That the definitions of "main condition" and "other conditions" as set out in that Annex should be incorporated, together with the modified rules for dealing with obviously incorrectly reported "main condition ".

The Conference agreed that extensive notes and examples would be added to provide further assistance.

It also

RECOMMENDS that where the "main condition" is subject to the dual classification system provided in ICD, both the dagger and asterisk codes should be recorded, to permit alternative tabulation by either.

8.3 Lists for tabulation of mortality and morbidity

The Conference was informed of difficulties that had arisen in the use of the Basic Tabulation List (BTL) based on ICD-9 and of the activities that had taken place to develop new lists for the tabulation and publication, particularly by WHO, of mortality data. In this process it had become apparent that rather than an infant mortality list, the list should include infant deaths and deaths of children up to the age of five years in view of the fact that mortality up to the age of five was a more robust indicator than infant mortality.

Two versions of each mortality list had been prepared for consideration by the Conference with the second including chapter titles and residual items for chapters as necessary.

working party was convened to consider the possible inclusion of some additional items. The report of the working party as presented was accepted by the Conference and is reflected in the mortality lists as presented in Annex V.

On the topic of lists for the tabulation of morbidity, the Conference reviewed both a proposed tabulation list and a model publication list based on chapter titles with selected items included as examples under each title.[4] Considerable concern was expressed about the applicability of such lists to all morbidity in the broadest sense and there was general agreement that the lists a presented were probably more suited to hospital morbidity but that further effor should be made toward the development of lists suitable for other morbidity applications and further that both mortality and morbidity tabulation lists shou be accompanied in ICD-10 by appropriate explanation and instruction as to their use.

Based on concerns raised in the Conference and the results of the working party, the Conference agreed that the tabulation and publication lists should remain as presented in Annex V but that there should be an effort to establish clearer, more descriptive titles for these.

To facilitate alternative tabulation of asterisk categories a second versi of the tabulation list should also be developed.

9. Family of classifications

9.1 Concept of the family of classification

Already during the preparation of the ninth revision it was realized that ICD alone could not cover all information required and that only a family of disease and health-related classifications would meet the different requirements in public health.

[3] Annex A, B, C, D of WHO/ICD10/REV.CONF/89.9

[4] Annex E, F of WHO/ICD10/REV.CONF/89.9

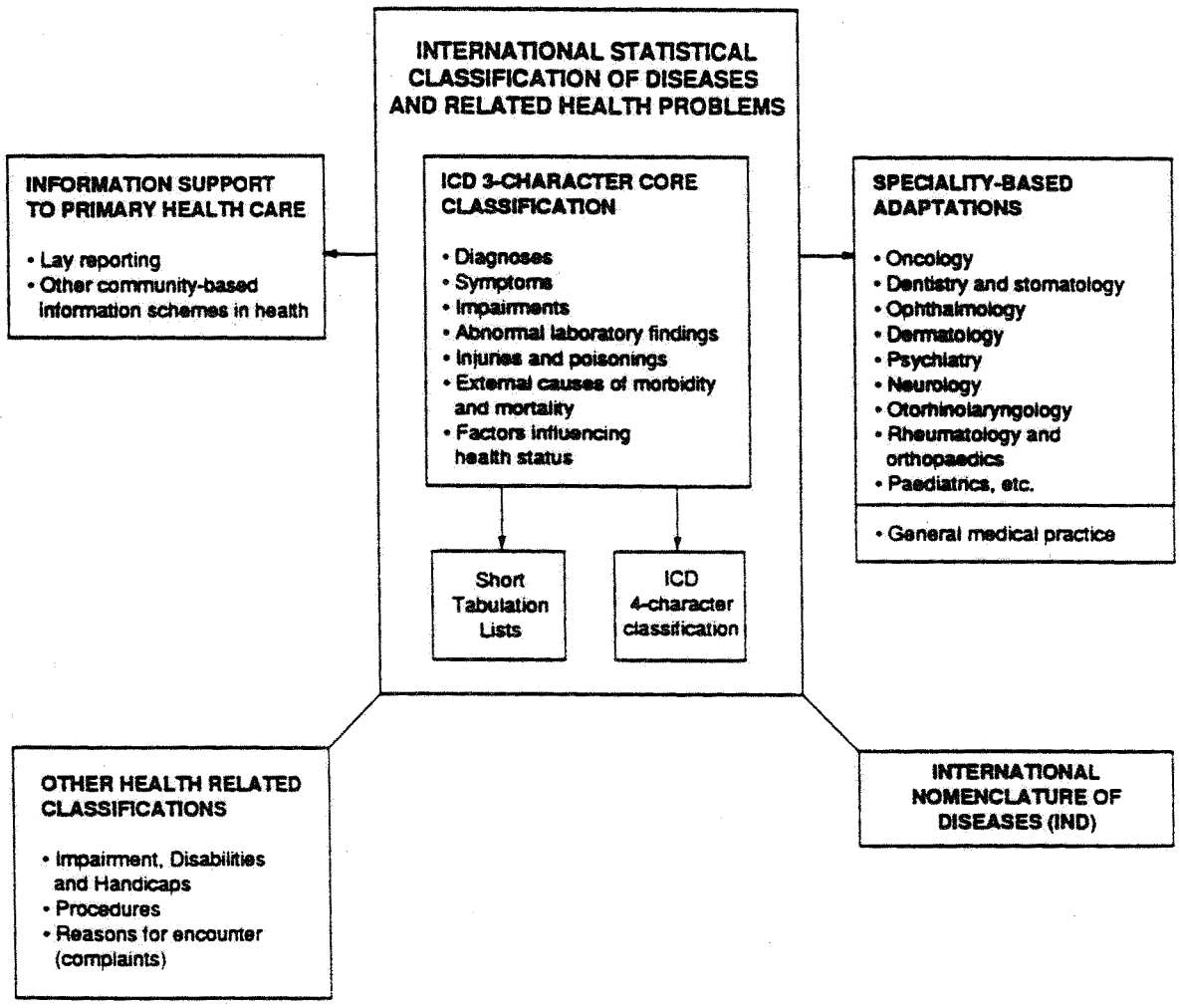
envisaged, among which was a core classification (ICD) connected to a series of modules, some hierarchically structured and others of a supplementary nature.

After studies and discussions in cooperation with the various WHO Collaborating Centres for Classification of Diseases, a scheme was elaborated which was reconsidered and revised by the second Expert Committee on ICD-10 and recommended as shown below:

STRUCTURE AND CONTENT OF THE FAMILY OF DISEASE AND HEALTH RELATED CLASSIFICATIONS

The proposed scheme is presented below:

FAMILY OF DISEASE AND HEALTH RELATED CLASSIFICATIONS



The Conference

RECOMMENDS that the concept of the family of disease and health related classification should be followed up by WHO and that the three-character core, the four-character classification and the short lists for tabulation should form together the International Statistical Classification of Diseases and Related Health Problems (ICD-10).

The Conference further

RECOMMENDS that in the interests of international comparability, no changes should be made to the content as indicated by the titles of the three-character categories and four-character subcategories of ICD-10 in the preparation of translations or adaptations.

The secretariat of WHO is responsible for ICD and acts as central clearing house for any publication or translation to be derived from it. WHO should be promptly notified about the intention to produce these.

The Conference viewed with interest a practical demonstration of the use and linkage of different members of the family in the medicosocial and multidimensional assessment of the elderly in relation not only to health but also to activities of daily living as well as the social and physical environment. It was demonstrated that effective information could be obtained through use of the ICD and the ICIDH and especially through use of the codes from the proposed Chapter XXI of ICD-10.

International Nomenclature of Diseases

Since 1970 the Council for International Organizations of Medical Sciences (CIOMS) has been involved in the preparation of an International nomenclature of diseases (IND) which should serve as a complement to the ICD.

The principal objective of the IND is to provide, for every morbid entity, a single recommended name. The main criteria for selection of this name are that it should be specific, unambiguous, as self-descriptive as possible, as simple as possible, and (wherever feasible) based on cause. Each disease or syndrome for which a name is recommended is defined as unambiguously, and yet as briefly, as possible. To the definition is appended a list of synonyms.

At the time of the Conference volumes had been published on the lower respiratory tract, infectious diseases, mycoses, viral and bacterial, and parasitic diseases, and cardiac and vascular diseases, and work was in preparation on volumes for the digestive system, urinary and male genital system, female genital system, metabolic and endocrine diseases, blood and blood-forming organs, immunological system, musculoskeletal system and nervous system.

Plans for future volumes included psychiatric diseases, as well as diseases of the skin, ear, nose and throat, and eye and adnexa.

The Conference recognized that an authoritative, up-to-date, and international nomenclature of diseases is important in the development of the ICD and for the comparability of health information. The Conference therefore

RECOMMENDS that WHO and CIOMS be encouraged to explore cost efficient ways to achieve the timely completion and maintenance of such a nomenclature.

9.2 Procedures in medicine

In 1978 WHO published the International Classification of Procedures in Medicine (ICPM) for trial purposes in accordance with the recommendations of the International Conference for the Ninth Revision in 1975 and resolution WHA29.35 of the 1976 World Health Assembly.

The classification was adopted by a few countries and was used as a basis for the national classifications of surgical operations of a number of others.

The Heads of WHO Collaborating Centres for Classification of Diseases have recognized that the essential process of drafting proposals, obtaining comments, redrafting and soliciting further comments, that WHO necessarily has to go through before finalization and publication, was inappropriate in such a rapidly advancing field as that of procedures. The Centre Heads recommended therefore that there should be no revision of the ICPM, in conjunction with ICD-10.

The second Expert Committee on ICD-10 asked that WHO consider updating for ICD-10 at least the outline of the surgical procedures (chapter 5) of the trial ICPM. Based on this request and the needs expressed by a number of countries an attempt was made by the secretariat to prepare a tabulation list for procedures.

This list was presented to the Centre Heads at their 1989 meeting and it was agreed that such a list could serve as a guide for national presentation or publication of statistics on surgical procedures and could also facilitate intercountry comparisons.

The aim of the list would be to identify and define procedures and groups of procedures as a basis for the development of national classifications thereby improving the comparability of such classifications.

The Conference agreed on the value of such a list and that work should continue on its development even though any publication would follow the implementation of ICD-10.

9.3 Impairments, Disabilities and Handicaps

The International Classification of Impairments, Disabilities and Handicaps (ICIDH) was published in English by WHO in 1980. Since that time research and development on the classification has followed a number of paths.

All three major definitions have undoubtedly been instrumental in changing attitudes to disablement. The definition of impairment, an area where there is considerable overlap with the terms included in the International Classification of Diseases (ICD), has been widely accepted. The definition of disability broadly matches the field of action of rehabilitation professionals and groups although there is felt to be a need for more attention in the associated code to the gradation of severity, often a predictor of handicap. There has also been increasing requests to revise the definition of handicap so as to put more emphasis on the effect of the environment.

The rate of evolution of ideas and practices in the management of disablement ruled out the production of a revised ICIDH in time to be submitted to the Revision Conference. The Conference was told that a definitive revision was unlikely after implementation of ICD-10.

9.4 Extending and condensing of ICD for specific purposes/clinical specialities and general medicine

The Conference was informed of plans for development of several adaptations of ICD-10 in the mental health programme area. Clinical guidelines would accompany a version intended for use by clinicians working in the field of psychiatry; research criteria would be proposed for use in investigations of mental health problems; multiaxial presentations for use in dealing with childhood disorders and for the classification of adult problems would be developed as well as a version for use by general practitioners. Compilations of ICD codes relevant to psychiatry (ICD-10 PA) and to neurology (ICD-10 NA) would also be produced along the lines of previous such publications.

The Conference also heard of the methods used to maintain the intent of the ICD in the development of the application for medical specialities for dentistry and stomatology (ICD-DA) and that a new revision of the ICD-DA linked to the ICD-10 was in the final stages of preparation.

There was also a presentation on the International Classification of Diseases for Oncology (ICD-O), Second Edition, a multiaxial classification including both the topography and morphology of neoplasms. The topography codes of the second edition would be based on categories C00-C80 in ICD-10 and publication would, therefore, await World Health Assembly approval of the Tenth Revision. The morphology codes of the ICD-O which had evolved over a long history had been revamped and extensively field tested before inclusion in the ICD-O, Second Edition.

9.5 Community-based information for health and lay reporting

Given the shortcomings of the formal health statistical systems in specific geographic areas, alternative methods exist or should be sought.

the Ninth Revision of ICD, a Working Group was convened by the WHO Regional Office for South-East Asia in New Delhi from 22-27 November 1976. The Working Group drew up a detailed list of symptom associations. From this detailed list, two short lists were derived, one for causes of death and one for reasons for contact with health services. Field trials of this system were carried out in countries of the Region and the results were used to revise the list of symptom associations and the reporting forms. This revised version was published by WHO in 1978 in the booklet Lay Reporting of Health Information.

The global strategy for Health for All by the Year 2000 (HFA/2000) launched in 1978 has thrown open a number of challenges for the development of information systems in Member States. With countries in conjunction with the global strategy of Health for All by the year 2000, reorienting and strengthening their health services to a health system based on primary health care, they recognized an urgent need to improve their information support for developing and managing such a system. With primary health care becoming the main focus for the countries' health systems, decentralization with maximum community involvement in identifying priority problems and participating in solving them, has become the basis for health systems development and management. This requires collection of information on health status that is meaningful to health personnel with different levels of education and training in medicine.

To obtain a factual picture of the health situation for the whole country and particularly to overcome difficulties in the collection of morbidity and mortality data, several initiatives including the use of lay reporting procedures have been undertaken. The information needs of health systems based on primary health care can be achieved by broadening the scope of lay reporting to a Community-based Health Information System (CHIS) that includes: health problems and needs, related risk factors and resources (including relevant information from related sectors) and is focussed on individuals grouped to families and based on communities. This expanded scheme is being tested in a number of countries and it appears that CHIS can provide information that is :

- complete compared with conventional institution-based information - i.e covering the total population and not restricted to demand;

- comprehensive as it facilitates the provision of continuity in health care; coverage of total population receiving all elements of PHC can b derived;

- efficient since common data elements of various programmes are generated only once and can be continuously updated;

- effective by being the basis for providing a consistent set of eligible persons for different programmes. Programme delivery records can be tailored to the requirements of the users but built on this common dataset; relevant information and indicators can then be derived for management;

- meaningful since data are generated in terms understandable to those who generate and use them.

At the community level, apart from morbidity and mortality data that can be generated through the lay reporting method, risk factors in terms of environmental hazards, behaviour and others of medical significance requiring special care can be studied for all individuals within a family and a risk score assigned to the family for priority attention for relevant care. The list of individuals when properly updated can also provide information on eligibles for various health care activities and services such as antenatal care, immunization, child care, nutrition etc. Given the socio-economic and environmental information, it should be possible to choose appropriate types and modes of interventions, be they promotional, preventive or curative, to ensure their effectiveness and contribution to improving the quality of life that underlies the health for all strategies. Continuous care registers for various programme/service interventions can be built around this "family sheet" to facilitate the initiation and maintenance of appropriate care to individuals through "follow-ups". The service registers, records and reports will thus have a single focus, to satisfy the managerial needs for information at different levels, with information emanating from different sources, it should be possible to develop a comprehensive measure of access to PHC.

At the national level, the community information, and if necessary even family information, can be aggregated to derive among others, a complete picture of the morbidity and mortality situation including the pattern of conditions for the whole country. This can be supplemented with a scheme such as sentinel reporting for epidemiological surveillance.

The Conference supported the concept of developing non-conventional methods at the community level as a method of filling gaps in and strengthening the information systems of individual countries. It was stressed that, for both developed and developing countries, such methods or systems should be developed locally and that, due to factors such as morbidity patterns as well as language and cultural variations, transfer to other locales should not be attempted.

10. Timetable for ICD-10

10.1 Publication of ICD-10

The Conference was informed that it was the intention of WHO to publish the 4 character version of ICD-10 in three volumes. A volume containing the Tabular List a second containing all related definitions, standards and rules, and the third containing the Alphabetical Index. The 3 character version of ICD-10 would appear as a single volume which, in the Tabular List would contain all inclusion and exclusion notes. It would also contain all related definitions, rules and instructions and a shortened Alphabetical Index.

The planned publication timetable for availability of all three volumes of the English and French four character versions of ICD-10 had a target date of the end of 1991. It was not anticipated that the three character version would be published before 1992.

Member States intending to produce national language versions of ICD-10, should notify WHO of their intentions. Copies of the draft proposals of ICD-10 at the 3 and 4 character levels would be made available from WHO both in printed form and on electronic media.

With respect to the physical appearance of the pages and type formats in both the Tabular List and Alphabetical Index, the Conference was assured that recommendations from the Centre Heads and complaints from coders would be considered and every attempt made to improve these aspects over ICD-9.

10.2 Familiarization and training

As with the ICD-9, it is intended to develop training material for reorientation of trained coders with the help of the Collaborating Centres. The actual training courses would be the responsibility of the regional offices. They would be carried out during late 1991 and through 1992 to finish before the implementation of ICD-10.

Training materials for basic training courses in the use of ICD-10 will be developed by WHO. It is not planned to begin these courses, however, before 1993.

10.3 As noted above, WHO will be prepared to provide ICD-10 (both the Tabular List and Alphabetical Index) on electronic media. In future, with the assistance of the Collaborating Centres, software may also become available. A conversion key for ICD-9 to ICD-10 and the reverse is intended to be made available before ICD-10 implementation.

10.4 Introduction of ICD-10 in countries

As activities that had been endorsed by the Expert Committee are on schedule, the Conference

RECOMMENDS that the Tenth Revision of the International Classification of Diseases should come into effect on 1 January 1993.

11. Future core classification

The Conference discussed the difficulties experienced over the extended implementation period of ICD-9 because of the recognition of new diseases and the lack of an updating mechanism to accommodate them.

Various suggestions for mechanisms to overcome this difficulty and avoid similar problems with respect to ICD-10 were discussed. There was a clear feeling that there was a need for ongoing information exchange to standardize the use of ICD-10 between countries but that any changes introduced throughout its "lifetime" should be considered very carefully with relation to their impact on analyses and trends. There was discussion of the types of forums in which such changes could be discussed and Member State input received as well as the potential for the use of the unused alpha character "U" for new or temporary code assignments. It was agreed that revision conferences were not feasible more frequently than every 10 years.

to attempt to determine or define the exact process to be used, the Conference

RECOMMENDS that WHO give consideration as to how an effective updating mechanism could be put in place.

12. Adoption of the Tenth Revision of the International Classification of Disea

The Conference,

Having considered the proposals prepared by the Organization on the recommendations of the Expert Committee on ICD-10

Recognizing the need for a few further minor modifications to meet the comm on points of detail submitted by Member States during the Conference,

RECOMMENDS that the proposed revised chapters as listed in Annex I and the Short Tabulation Lists for Morbidity and Mortality in Annex V to this repor constitute the Tenth Revision of the International Classification of Diseas

List of Chapters

:CD10/REV.PROP/89.1	-	Chapter I:	Certain infectious and parasitic diseases
:CD10/REV.PROP/89.2	-	Chapter II:	Neoplasms
:CD10/REV.PROP/89.3	-	Chapter III:	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
:CD10/REV.PROP/89.4	-	Chapter IV:	Endocrine, nutritional and metabolic diseases
:CD10/REV.PROP/89.5	-	Chapter V:	Mental and behavioural disorders
:CD10/REV.PROP/89.6	-	Chapter VI:	Diseases of the nervous system
:CD10/REV.PROP/89.7	-	Chapter VII:	Diseases of the eye and adnexa
:CD10/REV.PROP/89.8	-	Chapter VIII:	Diseases of the ear and mastoid process
:CD10/REV.PROP/89.9	-	Chapter IX:	Diseases of the circulatory system
:CD10/REV.PROP/89.10	-	Chapter X:	Diseases of the respiratory system
:CD10/REV.PROP/89.11	-	Chapter XI:	Diseases of the digestive system
:CD10/REV.PROP/89.12	-	Chapter XII:	Diseases of the skin and subcutaneous tissue
:CD10/REV.PROP/89.13	-	Chapter XIII:	Diseases of the musculoskeletal system and connective tissue
:CD10/REV.PROP/89.14	-	Chapter XIV:	Diseases of the genitourinary system
:CD10/REV.PROP/89.15	-	Chapter XV:	Pregnancy, childbirth and the puerperium
:CD10/REV.PROP/89.16	-	Chapter XVI:	Certain conditions originating in the perinatal period
:CD10/REV.PROP/89.17	-	Chapter XVII:	Congenital malformations, deformations, and chromosomal abnormalities
:CD10/REV.PROP/89.18	-	Chapter XVIII:	Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified
:CD10/REV.PROP/89.19	-	Chapter XIX:	Injury, poisoning and certain other consequences of external causes
:CD10/REV.PROP/89.20	-	Chapter XX:	External causes of morbidity and mortality
:CD10/REV.PROP/89.21	-	Chapter XXI:	Factors influencing health status and contact with health services

ANNEX II

RECOMMENDED DEFINITIONS, STANDARDS AND REPORTING REQUIREMENTS FOR ICD-10 RELATED TO FETAL, PERINATAL, NEONATAL AND INFANT MORTALITY

1. Definitions

1.1 Live birth

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of the pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born.

1.2 Fetal death [deadborn fetus]

Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

1.3 Birth weight

The first weight of the fetus or newborn obtained after birth.

1.4 Low birth weight

Less than 2500 g (up to, and including 2499 g).

1.5 Very low birth weight

Less than 1500 g (up to, and including 1499 g).

1.6 Extremely low birth weight

Less than 1000 g (up to, and including 999 g).

1.7 Gestational age

The duration of gestation is measured from the first day of the last normal menstrual period. Gestational age is expressed in completed days or completed weeks (e.g. events occurring 280 to 286 completed days after the onset of the last normal menstrual period are considered to have occurred at 40 weeks of gestation).

1.8 Pre-term

Less than 37 completed weeks (less than 259 days) of gestation.

1.9 Term

From 37 completed weeks to less than 42 completed weeks (259 to 293 days) of gestation.

1.10 Post-term

42 completed weeks or more (294 days or more) of gestation.

1.11 Perinatal period

The perinatal period commences at 22 completed weeks (154 days) of gestation (the time when birth weight is normally 500 g), and ends 7 completed days (168 hours) after birth.

1.12 Neonatal period

The neonatal period commences at birth and ends 28 completed days after birth. Neonatal deaths (deaths among live births during the first 28 completed days of life) may be subdivided into early neonatal deaths, occurring in the first seven days (167 hours) of life and late neonatal deaths, occurring after the seventh day but before 28 completed days of life.

2. Notes on definitions

2.1 For live births, birth weight should be measured preferably within the first hour of life before significant postnatal weight loss has occurred. Whilst statistical tabulations include 500 g groupings for birth weight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy that it is measured.

2.2 The definitions of "low", "very low", and "extremely low" birth weight do not constitute mutually exclusive categories. Below the set limits they are all-inclusive and therefore overlap. (i.e. "low" includes "very low" and "extremely low", while "very low" includes "extremely low").

2.3 Gestational age is frequently a source of confusion when calculations are based on menstrual dates. For the purposes of calculation of gestational age from the date of the first day of the last normal menstrual period and the date of delivery, it should be borne in mind that the first day is day zero and not day one; days 0-6 therefore correspond to "completed week zero", days 7-13 to "completed week one", and the 40th week of actual gestation is synonymous with "completed week 39". In order to avoid misunderstanding, tabulations should indicate both weeks and days.

3. Reporting requirements

3.1 It is recognized that legal requirements for the registration of fetal deaths and live births still vary from country to country and even within countries. However, it is recommended that, wherever possible, all fetuses and infants delivered weighing at least 500 g, whether alive or dead, be included in the statistical tabulations. When birth weight is unavailable, the corresponding criteria for gestational age (22 completed weeks), or body length (25 cm crown-heel) should be used. The criteria for deciding whether an event has taken place within the perinatal period should be applied in the order 1) birth weight, 2) gestational age, 3) crown-heel length. The inclusion of fetuses and infants weighing between 500 g and 1000 g in national statistics is recommended both because of its inherent value and because this inclusion improves the completeness of reporting at 1000 g and over.

3.2 In statistics for international comparison, inclusion of this group of extremely low birth weight births disrupts the validity of comparisons and is not recommended. Countries should therefore arrange registration and reporting procedures so that the events and the criteria for their inclusion in the statistics can be easily identified. Less mature fetuses and infants not corresponding to these criteria should be excluded from perinatal statistics unless there are legal or other valid reasons to the contrary, in which case this inclusion must be explicitly stated. Where these characteristics are unknown, the event should be included in, rather than excluded from, mortality statistics of the perinatal period. Countries should also present standard statistics in which both the numerator and the denominator of all ratios and rates are restricted to fetuses and infants weighing 1000 g or more (weight-specific ratios and rates); where birth weight is unavailable, the corresponding gestational age (28 completed weeks) or body length (35 cm crown-heel) should be used.

3.3 In reporting fetal, perinatal, neonatal and infant mortality statistics the number of deaths due to malformations should whenever possible be identified for live births and fetal deaths and in relation to birth weight of 500-999 g and 1000 g or more. Neonatal deaths due to malformations should be subdivided into early and late neonatal deaths. The availability of this information enables perinatal and neonatal mortality statistics to be reported with or without the deaths from malformations. A malformation is defined as a congenital morphological anomaly (see Chapter XVII) regarded to be the underlying cause of death during the fetal and neonatal period.

4. Ratios and rates

Published ratios and rates should always specify the denominator that has been used, i.e., live births or total births (live births plus fetal deaths). Countries are encouraged to provide the ratios and rates listed below, or as many of them as their data collection systems permit:

4.1 Fetal death ratio

$$\frac{\text{Fetal deaths}}{\text{Live births}} \times 1000$$

4.2 Fetal death rate:

$$\frac{\text{Fetal deaths}}{\text{Total births}} \times 1000$$

4.3 Fetal death rate, weight-specific:

$$\frac{\text{Fetal deaths weighing 1000 g and over}}{\text{Total births weighing 1000 g and over}} \times 1000$$

4.4 Early neonatal mortality rate:

$$\frac{\text{Early neonatal deaths}}{\text{Live births}} \times 1000$$

4.5 Early neonatal mortality rate, weight-specific:

$$\frac{\text{Early neonatal deaths of infants weighing 1000 g and over at birth}}{\text{Live births weighing 1000 g and over}} \times 1000$$

4.6 Perinatal mortality ratio:

$$\frac{\text{Fetal deaths and early neonatal deaths}}{\text{Live births}} \times 1000$$

4.7 Perinatal mortality rate[1]

$$\frac{\text{Fetal deaths and early neonatal deaths}}{\text{Total births}} \times 1000$$

4.8 Perinatal mortality rate, weight-specific:

$$\frac{\text{Fetal deaths weighing 1000 g and over, plus early neonatal deaths of infants weighing 1000 g and over at birth}}{\text{Total births weighing 1000 g and over}} \times 1000$$

4.9 Neonatal mortality rate:

$$\frac{\text{Neonatal deaths}}{\text{Live births}} \times 1000$$

4.10 Neonatal mortality rate, weight-specific:

$$\frac{\text{Neonatal deaths of infants weighing 1000 g and over at birth}}{\text{Live births weighing 1000 g and over}} \times 1000$$

4.11 Infant mortality rate:

$$\frac{\text{Number of deaths under one year of age}}{\text{Live births}} \times 1000$$

---

[1] The perinatal mortality rate is the number of fetal deaths weighing at least 500 g (or, when birth weight is unavailable, after 22 completed weeks of gestation or with a crown-heel length of 25 cm or more), plus the number of early neonatal deaths, per 1000 total births. Because of the different denominators in each component, this is not necessarily equal to the sum of the fetal death rate and the early neonatal mortality rate.

4.12 Infant mortality rate, weight-specific:

$$\frac{\text{Infant deaths among live births weighing 1000 g and over at birth}}{\text{Live births weighing 1000 g and over}} \times 1000$$

V. RECOMMENDED DEFINITIONS, STANDARDS AND REPORTING REQUIREMENTS FOR ICD-10 RELATED TO MATERNAL MORTALITY

1. Definitions

1.1 A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

1.2 Maternal deaths should be subdivided into two groups:

1.2.1 Direct obstetric deaths: those resulting from obstetric complications of the pregnant state (pregnancy, labour and puerperium), from interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above.

1.2.2 Indirect obstetric deaths: those resulting from previous existing disease or disease that developed during pregnancy and which was not due to direct obstetric causes, but which was aggravated by physiologic effects of pregnancy.

1.3 A pregnancy death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death. This includes direct and indirect obstetric deaths as defined above under 1.2.1 and 1.2.2 plus deaths resulting from violent or incidental causes not related to pregnancy, childbirth or the puerperium, but occurring during that period.

1.4 A late maternal death is defined as the death of a woman from direct or indirect obstetric causes more than 42 days but less than one year after termination of pregnancy.

2. Reporting requirements

2.1 For the purposes of the international reporting of maternal mortality only those maternal deaths occurring before the end of the 42-day reference period should be included in the various ratios and rates, though the collection of later deaths is useful for national analytical purposes.

2.2 Published maternal mortality rates should always specify the numerator (number of recorded maternal deaths), which can be given as:

- the number of recorded direct obstetric deaths, or
- the number of recorded obstetric deaths (direct plus indirect).

2.3 The denominator used for calculation should likewise be specified as either the number of live births or the number of total births (live births plus fetal deaths). Where figures for both live births and fetal deaths are available, a calculation should be published for each denominator.

2.4 Maternal deaths due to obstetric causes but occurring after the end of the puerperium should not be included in the calculation of maternal mortality rates.

3. Ratios and rates

These should be expressed as a ratio of the numerator to the denominator, multiplied by 1 000, 10 000, or 100 000 as preferred and indicated by the country. Maternal mortality ratios and rates can thus be expressed as:

3.1 Maternal mortality rate:

$$\frac{\text{Maternal deaths (direct and indirect)}}{\text{Live births}} \times k$$

3.2 Direct obstetric mortality ratio:

$$\frac{\text{Direct obstetric deaths only}}{\text{Live births}} \times k$$

3.3 Pregnancy mortality ratio:

$$\frac{\text{Pregnancy deaths}}{\text{Live births}} \times k$$

where k may be 1 000, 10 000 or 100 000 as specified by the country.

ANNEX III

RULES FOR SELECTION OF CAUSE OF DEATH FOR PRIMARY MORTALITY TABULATION

Logical Sequence

For the purposes of selection of the underlying cause of death, it is necessary to take into account the concept of "logical sequence".

The term "sequence" or "logical sequence" means two or more conditions entered on successive lines of Part I, each condition being an acceptable cause of the one entered on the line above it.

Example 1:

I (a) Respiratory failure
(b) Bronchopneumonia
(c) Measles

In this example, the sequence reported by the physician is: respiratory failure (due to) bronchopneumonia (due to) measles. Or, in an inverse way: measles (leading to) bronchopneumonia (leading to) respiratory failure.

If there is more than one cause of death in a line of the certificate, it is possible to have more than one reported logical sequence. In the example shown below there are four sequences reported:

Example 2:

I (a) Coma
(b) Myocardial infarction and cerebrovascular accident
(c) Atherosclerosis Hypertension

Atherosclerosis (leading to) Myocardial infarction (leading to) Coma
Atherosclerosis (leading to) Cerebrovascular accident (leading to) Coma
Hypertension (leading to) Myocardial infarction (leading to) Coma
Hypertension (leading to) Cerebrovascular accident (leading to) Coma

SELECTION RULES

General Principle

When more than one condition is entered on the certificate, select the condition entered alone on the lowest used line of Part I only if it could have given rise to all the conditions entered above it.

Rule 1. If the General Principle does not apply and there is a logical sequence terminating in the condition first entered on the certificate, select the originating cause of this sequence.

If there is more than one sequence terminating in the condition first mentioned select the originating cause of the first-mentioned sequence.

Rule 2. If there is no logical sequence terminating in the condition first entered on the certificate, select this first-mentioned condition.

Rule 3. If the condition selected by the General Principle or by Rule 1 or Rule 2 is obviously a direct consequence of another reported condition, whether in Part I or Part II, select this primary condition.

THE MODIFICATION RULES

RULE A. SENILITY AND OTHER ILL-DEFINED CONDITIONS. Where the selected cause is classifiable to Chapter XVIII (Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified) except for R95 (Sudden Infant Death Syndrome (SIDS)) and a condition classified elsewhere than to R00-R94 or to R96-R99 is reported on the certificate, reselect the cause of death as if the condition classified to Chapter XVIII had not been reported, except to take account of that condition if it modifies the coding.

RULE B. TRIVIAL CONDITIONS. Where the selected cause is a trivial condition unlikely to cause death and a more serious condition is reported, reselect the underlying cause as if the trivial condition had not been reported. If the death was the result of an adverse reaction to treatment of the trivial condition select the adverse reaction.

RULE C. LINKAGE. Where the selected cause is linked by a provision in the classification or in the Notes for use in underlying causes mortality coding on pages ... with one or more of the other conditions on the certificate, code the combination.

Where the linkage provision is only for the combination of one condition specified due to another, code the combination only when the correct causal relationship is stated or can be inferred from application of the selection rules.

Where a conflict in linkages occurs, link with the condition that would have been selected if the cause initially selected had not been reported. Apply any further linkage that is applicable.

RULE D. SPECIFICITY. Where the selected cause describes a condition in general terms and a term which provides more precise information about the site or nature of this condition is reported on the certificate, prefer the more informative term. This rule will often apply when the general term can be regarded as an adjective, qualifying the more precise term.

RULE E. EARLY AND LATE STAGES OF DISEASE. Where the selected cause is an early stage of a disease and a more advanced stage of the same disease is reported on the certificate, code to the more advanced stage. This rule does not apply to a "chronic" form reported as due to an "acute" form unless the classification gives special instructions to that effect.

RULE F. SEQUELAE. Where the selected cause is an early form of a condition for which the classification provides a separate "Sequelae of ..." category and there is evidence that death occurred from residual effects of this condition rather than in its active phase, code to the appropriate "Sequelae of ..." category.

The following "Sequelae of ..." categories have been provided: B90-B94, E64, G09, I69, O97 and Y85-Y89 (See III Sequelae, page ...).

ROUTINE SINGLE-CAUSE ANALYSIS OF CAUSES OF MORBIDITY

Definitions

The condition to be used for single-cause analysis of episodes of health care is the "main condition" treated or investigated during the relevant episode.

The MAIN CONDITION is defined as the diagnosis, established at the end of the episode of health care, of the condition primarily responsible for the patient receiving treatment or being investigated. If there is more than one such condition, the one which was responsible for the greatest use of resources should be selected. If no diagnosis was made, the main symptom, abnormal finding or problem should be selected as the main condition.

The record used for statistical analysis should, where practicable, also include, separately, "other conditions" or problems dealt with during the relevan episode of health care.

OTHER CONDITIONS are defined as those which co-exist or develop during the episode of health care and affect the management of the patient. Conditions that relate to an earlier episode and which have no bearing on the current episode of health care should not be recorded.

An "episode of health care" refers to a period of in-patient care or, for example, a contact (or series of contacts in a specific time-period) with a health-care practitioner in relation to the same condition or its immediate consequences. Administrative or organizational considerations will determine wha is to be regarded as an episode of health care for a specific data-collection system. It is therefore important that the criteria adopted in defining what is meant by an "episode" be explicitly stated in presentation of the statistics.

Routine single-cause analysis of data derived from surveys should be based on the condition mainly responsible for the relevant episode of illness.

The limitation of analysis to a single cause per episode necessarily involves a loss of information and it is recommended that, where practicable, multiple-condition coding and analysis be undertaken to supplement routine data. This should be done according to local rules, since no international rules have been recommended.

Guidelines for recording diagnostic information

General

The diagnoses in relation to the relevant episode of health care should be determined, and the "main condition" selected, by the health care practitioner responsible for the patient's treatment.

It is important that adequate health care record systems be provided in which the information is organized systematically and standard recording methods are used, thus allowing the responsible health care practitioner to indicate clearly his assessment of the "main condition" and "other condition" for each episode of health care. A properly-completed record is an essential tool in patient-management and also provides a valuable source of epidemiological and other statistical data on morbidity and other health care problems.

Specificity and detail

Each diagnostic label should be as informative as possible and should include whatever detail is available about the site, variety, etiology, etc. of the condition, to allow a good patient-management and at the same time a classification to the most specific ICD category. Examples of such diagnostic statements are shown below:

- transitional cell carcinoma of trigone of bladder;
- acute perforated appendicitis;
- diabetic cataract;
- meningococcal pericarditis;
- antenatal care for pregnancy-induced hypertension;
- diplopia due to allergic reaction to antihistamine taken as prescribed;
- osteoarthritis of hip due to an old hip fracture;
- fracture of neck of femur;
- third-degree burn of hand.

Uncertain diagnoses or symptoms

If, and only if, no definite diagnosis has been established by the end of an episode of health care, that information should be recorded which permits the greatest degree of specifity and knowledge about the condition which necessitated care or investigation. This should be in the form of stating a symptom, abnormal finding or problem, rather than qualifying a diagnosis as "possible", "questionable" or "suspected" when it has been considered but not established.

Non-illness situations

Episodes of health care or contact with health services are not restricted to the treatment or investigation of current illness or injury. When persons who are not currently sick or who have no condition classifiable to Chapters I-XIX encounter the health care system, details of the relevant circumstances should be recorded as the "main condition".

Examples of such reasons for contact are:

- monitoring of previously treated conditions;
- immunization;
- surveillance of persons at risk because of certain personal or family history;
- examinations of healthy persons for, e.g. insurance or occupational reasons;
- seeking of health-related advice;
- requests for advice by persons with social problems;
- consultation on behalf of a third party.

Chapter XXI (Factors influencing health status and contact with health services) provides a broad range of categories (Z00-Z98) for classifying these circumstances; reference to this chapter will give an idea of the detail required to permit classification to the most relevant category.

Multiple conditions

Where an episode of health care is directed at multiple related conditions, for example, multiple injuries, multiple sequelae of a previous illness or injury, or multiple conditions occurring in Human immunodeficiency virus [HIV] disease, and one of them is clearly more severe and resource-intensive than the others, that one should be recorded as the "main condition" and the others recorded as "other conditions". Where no one condition predominates in the use of resources, a term such as "multiple fractures", "multiple head injuries" or "HIV disease with multiple infections" may be recorded as the "main condition", followed by a list of the conditions. Only if this is impracticable because of the number of such conditions should a term such as "multiple injuries", or "multiple crushing injuries" be recorded alone. Categories are provided in ICD for coding "Multiple ... " where necessary.

Conditions due to external causes

Chapter XX (External causes of morbidity and mortality) permits the classification of external causes of morbidity. When a condition such as an injury, poisoning or an other effect of external causes is recorded, it is important to describe fully both the nature of the condition and the circumstances which gave rise to it. Examples are: "fracture of neck of femur caused by fall due to slipping on greasy pavement"; "cerebral contusion caused when patient lost control of car, which hit a tree"; "accidental poisoning - patient drank disinfectant in mistake for soft drink"; "severe hypothermia - patient fell in her garden in cold weather".

Dual classification system ("dagger and asterisk" system)

The ICD provides a dual classification system (dagger (+) codes and asterisk (*) codes) for coding diagnostic statements which combine information about an underlying disease and a complication or manifestation in a particular organ or site. Where conditions linked in this way are the main reason for treatment or investigation, both elements should be included in the description of the "main condition", to allow the ICD coding to represent the situation fully. Examples of such descriptions are: "Tuberculous pericarditis", "Diabetic cataract", "Meningitis in infectious mononucleosis". Reference to the ICD manual will give an idea of the kind of conditions which the classification links in this way.

Treatment for sequelae of pre-existing conditions

Where an episode of care is for treatment or investigation directed to a residual condition (a "sequela") of a disease that is no longer present, the nature of the sequela should be fully described and its origin stated, together with a clear indication that the original disease is no longer present. Examples are: "Deflected nasal septum - fracture of nose in childhood", "Contracture of Achilles tendon - late effect of injury to tendon", "Infertility due to tubal occlusion from old tuberculosis".

Where multiple sequelae are present and treatment or investigation is not directed predominantly at one of them, a statement such as "Sequelae of cerebrovascular accident" or "Sequelae of multiple fractures" is acceptable.

Guidelines for coding of "main condition"

General

The determination of the "main condition" and "other conditions" relevant to an episode of health care should have been done by the responsible health care practitioner, and coding is therefore usually straightforward, since the "main condition" indicated as such should be accepted for coding and processing unless it is obvious by reference to other data being coded that the health care practitioner has not understood or followed the guidelines provided above. Whenever possible, a record with an obviously inconsistent or incorrectly recorded "main condition" should be returned to the responsible health care practitioner for clarification. Failing clarification, Rules MB1 to MB5 are provided to deal with the more frequent varieties of incorrect recording which the coder may encounter.

Once the "main condition" is determined, its ICD code should be assigned following normal procedures. In most cases this is straightforward, but guidelines are provided below for assignment in certain situations in which the coder may be unclear as to the appropriate code.

It has been recommended that "other conditions" in relation to an episode of care are recorded in addition to the "main condition" even when single-cause analysis only is to be performed. This also provides the coder with a full picture of the circumstances which may assist in the assignment of the correct ICD code for the "main condition".

Optional additional codes

In the guidelines below, a preferred code for "main diagnosis" is sometimes indicated, together with an optional additional code which may elaborate the situation. The preferred code is that to be used for the "main condition" for single-cause analysis and the additional code may be included, if wished, in the codes subjected to multiple-cause analysis.

Examples: ...

Coding of conditions to which the dagger and asterisk system applies

For diagnostic statements to which the dagger and asterisk system applies, both "dagger" and "asterisk" codes should be used for coding the "main condition", since they are alternatives permitting different kinds of single-cause analysis. (See Introduction to the Manual, pages ...). If it is not possible to use more than one code, the dagger code should be used, as this is the "traditional" ICD code for epidemiological purposes.

Examples: ...

Coding of suspected conditions, symptoms and abnormal findings, and non-illness situations

The coder should in general be wary of coding as the "main condition" conditions classifiable to Chapters XVIII and XXI if the episode of health care relates to a stay as an in-patient. If, but only if, it is apparent that no more specific diagnosis was formulated by the end of the in-patient stay, or that the in-patient care was genuinely that of a patient with no codable current illness or injury, codes from these chapters are perfectly acceptable. (See also Rules MB3 and MB5, pages and). For other types of episode of contact with health services, the categories are often acceptable without question.

If at the completion of an episode of health care the "main condition" is still recorded as "suspected ..." "questionable", etc., and other relevant information and clarification is not available or possible, the diagnosis must be coded as if it existed.

A category, Z04.-, is provided in ICD for coding certain conditions which were originally suspected but have been ruled out after study.

Examples: ...

Coding of multiple conditions

Where multiple conditions are recorded for which the ICD provides a category entitled "Multiple ..." and no single one of them is indicated as, or can be assumed to be, the condition to which treatment was predominantly directed, the code for the category or subcategory entitled "Multiple ..." should be used as the preferred code, and codes for any individual conditions listed should be added as optional additional codes.

This applies mainly to conditions associated with HIV disease, to injuries and sequelae. See the chapter-specific notes (section 2.5) for further explanation of coding.

Coding of combinations of conditions

The ICD provides certain categories where two conditions or a condition and an associated secondary process can be represented by a single code. Such combination categories should be used as the "main condition" where appropriate information is recorded. The Alphabetical Index indicates where such combinations are provided for, under the indent "with", which appears immediately after the lead term. Two or more conditions recorded under "main condition" may be linked if one of them may be regarded as an adjectival modifier of the other.

Examples: ...

Coding of external causes of morbidity

It is recommended that for injuries and other conditions due to external causes, both the nature of the condition and the circumstances of the external cause are to be coded. The preferred "main condition" code should be that for the nature of the condition. This will usually be classifiable to Chapter XIX, but will sometimes be in one of the other chapters. The code from Chapter XX indicating the external cause should be used as an optional additional code.

Examples: ...

Coding of sequelae of certain conditions

The ICD provides a number of categories entitled "Sequelae of ..." (B90-B94, E64, E68, G09, I69, O97, T90-T98, Y85-Y89) which may be used to indicate conditions not now present as the cause of a current problem undergoing treatment or investigation. The preferred code for the "main condition" is, however, the code for the nature of the sequela itself, to which the code for "Sequelae of ..." may be added as an optional additional code.

Where a number of different very specific sequelae is present, and treatment of no one of them predominates in severity and use of resources, it is permissible for the description "Sequelae of ..." to be recorded as the "main condition", and this may then be coded to the appropriate category. Note that it is sufficient that the causal condition be described as "old", "no longer present", etc. or that the resulting condition be described as "late effect of ...", or "sequela of ..." for this to apply. There is no minimum time interval.

Examples: ...

Coding of acute and chronic conditions

Where the "main condition" is recorded as being both acute (or subacute) and chronic, and ICD-10 provides separate categories or subcategories for each, the category for the acute condition should be used as the preferred "main condition".

Examples: ...

Rules for reselection when the "main condition" is obviously incorrectly recorded

As previously emphasized, it is the responsible health care practitioner who should indicate his selection of "main diagnosis" to be coded and this should normally be accepted for coding, subject to the guidelines above.

However, certain circumstances or the availability of other information may indicate that the health care practitioner has not understood or not followed the advice on what was required. If it is not possible to obtain clarification from the health-care practitioner, one of the following rules may be applied and the "main condition" reselected.

Rule MB1. Minor condition recorded as "main condition", more significant condition recorded as "other condition"

Where a minor or long-standing condition or an incidental problem is recorded as the "main condition", and a more significant condition, relevant to the treatment given and/or the speciality which cared for the patient, is recorded as an "other condition", reselect the latter as the "main condition".

Examples: ...

Rule MB2. Several conditions recorded as "main condition"

If several conditions which cannot be coded jointly are recorded as the "main condition" and other details on the record point to one of them as being the "main condition" for which the patient received care, select that condition. Otherwise select the first mentioned.
Note: See paragraphs ... page ... on the use of "combination" and "multiple" codes.

Examples: ...

Rule MB3. Condition recorded as "main condition" is the presenting symptom of diagnosed treated condition

If a symptom or sign (usually classifiable to Chapter XVIII), or a problem classifiable to Chapter XXI, is recorded as the "main condition", and this is obviously the presenting sign, symptom or problem of a diagnosed condition recorded elsewhere, and care was given for the latter, reselect the diagnosed condition as the "main condition".

Examples: ...

Rule MB4. Specificity

Where the diagnosis recorded as the "main condition" describes a condition in general terms, and a term which provides more precise information about the site or nature of the condition is recorded elsewhere, reselect the latter as the "main condition".

Examples: ...

Rule MB5. Alternative main diagnoses

Where a symptom or sign is recorded as the "main condition" with an indication that it may be due to either one condition or another, select the symptom as the "main condition".

Where two or more conditions are recorded as diagnostic options for the "main condition", select the first condition recorded.

Examples: ...

1.	Cholera	A00
2.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
3.	Other intestinal infectious diseases	A01-A08
4.	Respiratory tuberculosis	A15-A16
5.	Other tuberculosis	A17-A19
6.	Plague	A20
7.	Tetanus	A33-A35
8.	Diphtheria	A36
9.	Whooping cough	A37
10.	Meningococcal infection	A39
11.	Septicaemia	A40-A41
12.	Infections with a predominantly sexual mode of transmission	A50-A64
13.	Acute poliomyelitis	A80
14.	Rabies	A82
15.	Yellow fever	A95
16.	Other arthropod-borne viral haemorrhagic fevers	A90-A94, A96-A99
17.	Measles	B05
18.	Viral hepatitis	B15-B19
19.	Human immunodeficiency virus [HIV] disease	B20-B24
20.	Malaria	B50-B54
21.	Leishmaniasis	B55
22.	Trypanosomiasis	B56-B57
23.	Schistosomiasis	B65
24.	Remainder of certain infectious and parasitic diseases	A21-A32,A38,A42-A49, A65-A79,A81,A83-A89, B00-B04,B06-B09, B25-B49, B58-B64, B66-B99
25.	Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
26.	Malignant neoplasm of oesophagus	C15
27.	Malignant neoplasm of stomach	C16
28.	Malignant neoplasm of colon, rectum and anus	C18-C21
29.	Malignant neoplasm of liver and intrahepatic bile ducts	C22
30.	Malignant neoplasm of pancreas	C25
31.	Malignant neoplasm of larynx	C32
32.	Malignant neoplasm of trachea, bronchus and lung	C33-C34
33.	Malignant melanoma of skin	C43
34.	Malignant neoplasm of breast	C50
35.	Malignant neoplasm of cervix uteri	C53
36.	Malignant neoplasm of other and unspecified parts of uterus	C54-C55
37.	Malignant neoplasm of ovary	C56
38.	Malignant neoplasm of prostate	C61
39.	Malignant neoplasm of bladder	C67
40.	Malignant neoplasm of meninges, brain and other parts of nervous system	C70-C72
41.	Non-Hodgkin's lymphoma	C82-C85
42.	Multiple myeloma and plasma cell neoplasms	C90
43.	Leukaemias	C91-C95
44.	Remainder of malignant neoplasms	C17, C23-C24, C26-C31, C37-C41,C44-C49, C51-C52,C57-C60, C62-C66,C68-C69, C73-C81, C88, C96-C97

45. Anaemias	D50-D64
46. Diabetes mellitus	E10-E14
47. Malnutrition	E40-E46
48. Mental and behavioural disorders due to pyschoactive and other substance use	F10-F19
49. Meningitis	G00, G03
50. Alzheimer's disease	G30
51. Acute rheumatic fever and chronic rheumatic heart disease	I00-I09
52. Hypertensive disease	I10-I15
53. Ischaemic heart disease	I20-I25
54. Other heart disease	I26-I51
55. Cerebrovascular diseases	I60-I69
56. Atherosclerosis	I70
57. Remainder of diseases of the circulatory system	I71-I99
58. Influenza	J12-J13
59. Pneumonia	J14-J20
60. Other acute lower respiratory infections	J10-J11, J21
61. Chronic lower respiratory diseases	J40-J47
62. Remainder of diseases of the respiratory system	J00-J06, J30-J39, J60-J98
63. Gastric and duodenal ulcer	K25-K27
64. Diseases of liver	K70-K76
65. Glomerular and renal tubulo-interstitial diseases	N00-N15
66. Pregnancy with abortive outcome	O00-O08
67. Other direct obstetric deaths	O10-O92
68. Indirect obstetric deaths	O98-O99
69. Certain conditions originating in the perinatal period	P00-P95
70. Congenital malformations, deformations and chromosomal abnormalities	Q00-Q99
71. Symptoms, signs and abnormal clinical and laboratory findings NEC	R00-R99
72. All other diseases	D00-D48, D65-D89, E00-E07 E20-E35, E50-E90, F01-F09 F20-F99, G04-G25, G31-G98 H00-H95, K00-K22, K27-K66, K80-K92, L00-L98, M00-M99, N17-N99, O95-O97, S00-T98
73. Transport accidents	V00-V99
74. Falls	W00-W19
75. Accidental drowning and submersion	W65-W74
76. Exposure to smoke, fire and flames	X00-X09
77. Accidental poisoning by and exposure to noxious substances	X40-X49
78. Intentional self-harm	X60-X84
79. Assault	X85-Y09
80. All other external causes	W20-W64, W75-W99, X10-X39, X50-X57, Y10-Y89

2. MORTALITY TABULATION SHORT LIST

1.	CERTAIN INFECTIOUS AND PARASITIC DISEASES	A00-B99
2.	Cholera	A00
3.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
4.	Other intestinal infectious diseases	A01-A08
5.	Respiratory tuberculosis	A15-A16
6.	Other tuberculosis	A17-A19
7.	Plague	A20
8.	Tetanus	A33-A35
9.	Diphtheria	A36
10.	Whooping cough	A37
11.	Meningococcal infection	A39
12.	Septicaemia	A40-A41
13.	Infections with a predominantly sexual mode of transmission	A50-A64
14.	Acute poliomyelitis	A80
15.	Rabies	A82
16.	Yellow fever	A95
17.	Other arthropod-borne viral haemorrhagic fevers	A90-A94, A96-A99
18.	Measles	B05
19	Viral hepatitis	B15-B19
20.	Human immunodeficiency virus [HIV] disease	B20-B24
21.	Malaria	B50-B54
22.	Leishmaniasis	B55
23.	Trypanosomiasis	B56-B57
24.	Schistosomiasis	B65
25.	Remainder of certain infectious and parasitic diseases	A21-A32, A38, A42-A49, A65-A79, A81, A83-A89, B00-B04, B06-B09, B25-B49, B58-B64, B66-B99
26.	NEOPLASMS	C00-D48
27.	Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
28.	Malignant neoplasm of oesophagus	C15
29.	Malignant neoplasm of stomach	C16
30.	Malignant neoplasm of colon, rectum and anus	C18-C21
31.	Malignant neoplasm of liver and intrahepatic bile ducts	C22
32.	Malignant neoplasm of pancreas	C25
33.	Malignant neoplasm of larynx	C32
34.	Malignant neoplasm of trachea, bronchus and lung	C33-C34
35.	Malignant melanoma of skin	C43
36.	Malignant neoplasm of breast	C50
37.	Malignant neoplasm of cervix uteri	C53
38.	Malignant neoplasm of other and unspecified parts of uterus	C54-C55
39.	Malignant neoplasm of ovary	C56
40.	Malignant neoplasm of prostate	C61
41.	Malignant neoplasm of bladder	C67
42.	Malignant neoplasm of meninges, brain and other parts of nervous system	C70-C72
43.	Non-Hodgkin's lymphoma	C82-C85
44.	Multiple myeloma and plasma cell neoplasms	C90
45.	Leukaemias	C91-C95
46.	Remainder of malignant neoplasms	C17, C23-C24, C26-C31, C37-C41, C44-C49, C51-C52, C57-C60, C62-C66, C68-C69, C73-C81, C88, C96-C97

47.	Remainder of neoplasms	D00-D48
48.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM	D50-D89
49.	Anaemias	D50-D64
50.	Remainder of diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D65-D89
51.	ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	E00-E89
52.	Diabetes mellitus	E10-E14
53.	Malnutrition	E40-E46
54.	Remainder of endocrine, nutritional and metabolic diseases	E00-E07, E15-E34, E50-E89
55.	MENTAL AND BEHAVIOURAL DISORDERS	F01-F99
56.	Mental and behavioural disorders due to psychoactive and other substance use	F10-F19
57.	Remainder of mental and behavioural disorders	F01-F09, F20-F99
58.	DISEASES OF THE NERVOUS SYSTEM	G00-G98
59.	Meningitis	G00, G03
60.	Alzheimer's disease	G30
61.	Remainder of diseases of the nervous system	G04-G25, G31-G98
62.	DISEASES OF THE EYE AND ADNEXA	H00-H59
63.	DISEASES OF THE EAR AND MASTOID PROCESS	H60-H95
64.	DISEASES OF THE CIRCULATORY SYSTEM	I00-I99
65.	Acute rheumatic fever and chronic rheumatic heart disease	I00-I09
66.	Hypertensive disease	I10-I15
67.	Ischaemic heart disease	I20-I25
68.	Other heart disease	I26-I51
69.	Cerebrovascular diseases	I60-I69
70.	Atherosclerosis	I70
71.	Remainder of diseases of the circulatory system	I71-I99
72.	DISEASES OF THE RESPIRATORY SYSTEM	J00-J98
73.	Influenza	J12-J13
74.	Pneumonia	J14-J20
75.	Other acute lower respiratory infections	J10-J11, J21
76.	Chronic lower respiratory diseases	J40-J47
77.	Remainder of diseases of the respiratory system	J00-J06, J30-J39, J60-J98
78.	DISEASES OF THE DIGESTIVE SYSTEM	K00-K92
79.	Gastric and duodenal ulcer	K25-K27
80.	Diseases of liver	K70-K76
81.	Remainder of diseases of the digestive system	K00-K22, K28-K66, K80-K92
82.	DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	L00-L98
83.	DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	M00-M99
84.	DISEASES OF THE GENITOURINARY SYSTEM	N00-N99
85.	Glomerular and renal tubulo-interstitial diseases	N00-N15
86.	Remainder of diseases of the genito-urinary system	N17-N99
87.	PREGNANCY, CHILDBIRTH AND THE PUERPERIUM	O00-O99
88.	Pregnancy with abortive outcome	O00-O08
89.	Other direct obstetric deaths	O10-O92
90.	Indirect obstetric deaths	O98-O99
91.	Remainder of pregnancy, childbirth and the puerperium	O95-O97
92.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	P00-P95

93. CONGENITAL MALFORMATIONS, DEFORMATIONS, AND CHROMOSOMAL ABNORMALITIES	Q00-Q99
94. SYMPTOMS, SIGNS AND ABNORMAL CLINICAL AND LABORATORY FINDINGS NOT ELSEWHERE CLASSIFIED	R00-R99
95. EXTERNAL CAUSES OF MORBIDITY AND MORTALITY	V00-Y89
96. Transport accidents	V00-V99
97. Falls	W00-W19
98. Accidental drowning and submersion	W65-W74
99. Exposure to smoke, fire and flames	X00-X09
100. Accidental poisoning by and exposure to noxious substances	X40-X49
101. Intentional self-harm	X60-X84
102. Assault	X85-Y09
103. All other external causes	W20-W64, W75-W99, X10-X39, X50-X57, Y10-Y89

3.GENERAL INFANT AND CHILD MORTALITY SHORT LIST

1.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
2.	Other intestinal infectious diseases	A00-A08
3.	Tuberculosis	A15-A19
4.	Tetanus	A33, A35
5.	Diphtheria	A36
6.	Whooping cough	A37
7.	Meningococcal infection	A39
8.	Septicaemia	A40-A41
9.	Acute poliomyelitis	A80
10.	Measles	B05
11.	Human immunodeficiency virus [HIV] disease	B20-B24
12.	Other viral diseases	A81-B04, B06-B19 B25-B34
13.	Malaria	B50-B54
14.	Remainder of certain infectious and parasitic diseases	A20-A32, A38, A42-A79, B35-B49, B55-B99
15.	Leukaemia	C91-C95
16.	Remainder of malignant neoplasms	C00-C90, C96-C97
17.	Anaemias	D50-D64
18.	Remainder of diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D65-D89
19.	Malnutrition and other nutritional deficiencies	E40-E64
20.	Meningitis	G00-G03
21.	Remainder of diseases of the nervous system	G04-G98
22.	Pneumonia	J14-J20
23.	Other acute respiratory infections	J00-J13, J21
24.	Diseases of the digestive system	K00-K92
25.	Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery	P00-P04
26.	Disorders relating to length of gestation and fetal growth	P05-P08
27.	Birth trauma	P10-P15
28.	Intrauterine hypoxia and birth asphyxia	P20-P21
29.	Respiratory distress	P22
30.	Congenital pneumonia	P23
31.	Other respiratory conditions of newborn	P24-P28
32.	Bacterial sepsis of newborn	P36
33.	Omphalitis of newborn with or without mild haemorrhage	P38
34.	Haemorrhagic and haematological disorders of fetus or newborn	P50-P61
35.	Remainder of perinatal conditions	P29, P35, P37, P39, P70-P95
36.	Congenital hydrocephalus and spina bifida	Q03, Q05
37.	Other congenital malformations of the nervous system	Q00-Q02, Q04, Q06-Q07
38.	Congenital malformations of the heart	Q20-Q24
39.	Other congenital malformations of the circulatory system	Q25-Q28
40.	Down's syndrome and other chromosomal abnormalities	Q90-Q99
41.	Other congenital malformations	Q10-Q18, Q30-Q89

42. Sudden infant death syndrome	R95
43. Other symptoms, signs and abnormal clinical and laboratory findings NEC	R00-R94, R96-R99
44. All other diseases	D00-D48, E00-E34, E65-E89 F01-F99, H00-H95, I00-I99 J30-J98, L00-L98, M00-M99, N00-N99
45. Transport accidents	V01-V99
46. Accidental drowning and submersion	W65-W74
47. Other accidental threats to breathing	W75-W84
48. Exposure to smoke, fire and flames	X00-X09
49. Accidental poisoning by and exposure to noxious substances	X40-X49
50. Assault	X85-Y09
51. All other external causes	W00-W64, W85-W99, X10-X39, X50-X84, Y10-Y89

4. INFANT AND CHILD MORTALITY TABULATION SHORT LIST

1.	CERTAIN INFECTIOUS AND PARASITIC DISEASES	A00-A99
2.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
3.	Other intestinal infectious diseases	A00-A08
4.	Tuberculosis	A15-A19
5.	Tetanus	A33, A35
6.	Diphtheria	A36
7.	Whooping cough	A37
8.	Meningococcal infection	A39
9.	Septicaemia	A40-A41
10.	Acute poliomyelitis	A80
11.	Measles	B05
12.	Human immunodeficiency virus [HIV] disease	B20-B24
13.	Other viral diseases	A81-B04, B06-B19, B25-B34
14.	Malaria	B50-B54
15.	Remainder of certain infectious and parasitic diseases	A20-A32, A38, A42-A79 B35-B49, B55-B99
16.	NEOPLASMS	C00-D48
17.	Leukaemia	C91-C95
18.	Remainder of malignant neoplasms	C00-C90, C96-C97
19.	Remainder of neoplasms	D00-D48
20.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM	D50-D89
21.	Anaemias	D50-D64
22.	Remainder of diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D65-D89
23.	ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	E00-E89
24.	Malnutrition and other nutritional deficiencies	E40-E64
25.	Remainder of endocrine, nutritional and metabolic diseases	E00-E34, E65-E89
26.	DISEASES OF THE NERVOUS SYSTEM	G00-G98
27.	Meningitis	G00, G03
28.	Remainder of diseases of the nervous system	G04-G98
29.	DISEASES OF THE EAR	H60-H95
30.	DISEASES OF THE CIRCULATORY SYSTEM	I00-I99
31.	DISEASES OF THE RESPIRATORY SYSTEM	J00-J98
32.	Pneumonia	J14-J20
33.	Other acute respiratory infections	J00-J13, J21
34.	Remainder of diseases of the respiratory system	J30-J98
35.	DISEASES OF THE DIGESTIVE SYSTEM	K00-K92
36.	DISEASES OF THE GENITOURINARY SYSTEM	N00-N99
37.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	P00-P95
38.	Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery	P00-P04
39.	Disorders relating to length of gestation and fetal growth	P05-P08
40.	Birth trauma	P10-P15
41.	Intrauterine hypoxia and birth asphyxia	P20-P21

42. Respiratory distress	P22
43. Congenital pneumonia	P23
44. Other respiratory conditions of newborn	P24-P28
45. Bacterial sepsis of newborn	P36
46. Omphalitis of newborn with or without mild haemorrhage	P38
47. Haemorrhagic and haematological disorders of fetus or newborn	P50-P61
48. Remainder of perinatal conditions	P29, P35, P37, P39, P70-P95
49. CONGENITAL MALFORMATIONS, DEFORMATIONS AND CHROMOSOMAL ABNORMALITIES	Q00-Q99
50. Congenital hydrocephalus and spina bifida	Q03, Q05
51. Other congenital malformations of the nervous system	Q00-Q02, Q04, Q06-Q07
52. Congenital malformations of the heart	Q20-Q24
53. Other congenital malformations of the circulatory system	Q25-Q28
54. Down's syndrome and other chromosomal abnormalities	Q90-Q99
55. Other congenital malformations	Q10-Q18, Q30-Q89
56. SYMPTOMS, SIGNS AND ABNORMAL CLINICAL AND LABORATORY FINDINGS NEC	R00-R99
57. Sudden infant death syndrome	R95
58. Other symptoms, signs and abnormal clinical and laboratory findings NEC	R00-R94, R96-R99
59. All other diseases	F01-F99, H00-H59, L00-L98, M00-M99,
60. EXTERNAL CAUSES OF MORBIDITY AND MORTALITY	V00-Y89
61. Transport accidents	V01-V99
62. Accidental drowning and submersion	W65-W74
63. Other accidental threats to breathing	W75-W84
64. Exposure to smoke, fire and flames	X00-X09
65. Accidental poisoning by and exposure to noxious substances	X40-X49
66. Assault	X85-Y09
67. All other external causes	W00-W64, W85-W99, X10-X39, X50-X84, Y10-Y89

5. TABULATION LIST FOR MORBIDITY

1.	Cholera	A00
2.	Typhoid and paratyphoid fevers	A01
3.	Shigellosis	A03
4.	Amoebiasis	A06
5.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
6.	Other intestinal infectious diseases	A02, A04-A05, A07-A08
7.	Respiratory tuberculosis	A15-A16
8.	Other tuberculosis	A17-A19
9.	Plague	A20
10.	Brucellosis	A23
11.	Leprosy [Hansen's disease]	A30
12.	Tetanus neonatorum	A33
13.	Other tetanus	A34-A35
14.	Diphtheria	A36
15.	Whooping cough	A37
16.	Meningococcal infection	A39
17.	Septicaemia	A40-A41
18.	Other bacterial diseases	A21-A22, A24-A28, A31-A32 A38, A42-A49
19.	Congenital syphilis	A50
20.	Early syphilis	A51
21.	Other syphilis	A52-A53
22.	Gonococcal infection	A54
23.	Sexually transmitted chlamydial diseases	A55-A56
24.	Other infections with a predominantly sexual mode of transmission	A57-A64
25.	Relapsing fevers	A68
26.	Trachoma	A71
27.	Typhus fever	A75
28.	Acute poliomyelitis	A80
29.	Rabies	A82
30.	Viral encephalitis	A83-A86
31.	Yellow fever	A95
32.	Other viral haemorrhagic fevers	A96-A99
33.	Herpesviral [herpes simplex] infections NEC	B00
34.	Varicella [chickenpox] and zoster [herpes zoster]	B01-B02
35.	Measles	B05
36.	Rubella [German measles]	B06
37.	Acute hepatitis B	B16
38.	Other viral hepatitis	B15, B17-B19
39.	Human immunodeficiency virus [HIV] disease	B20-B24
40.	Mumps	B26
41.	Other viral diseases	A81, A87-A94, B03-B04, B07-B09, B25, B27-B34

42.	Mycoses	B35-B49
43.	Malaria	B50-B54
44.	Leishmaniasis	B55
45.	Trypanosomiasis	B56-B57
46.	Schistosomiasis [bilharziasis]	B65
47.	Other fluke infections	B66
48.	Echinococcosis	B67
49.	Dracunculiasis	B72
50.	Onchocerciasis	B73
51.	Filariasis	B74
52.	Hookworm diseases	B76
53.	Other helminthiases	B68-B71, B75, B77-B83
54.	Sequelae of tuberculosis	B90
55.	Sequelae of poliomyelitis	B91
56.	Sequelae of leprosy	B92
57.	Other infectious and parasitic diseases	A65-A67, A69-A70, A74, A77-A79, B58-B64, B85-B89, B94-B99
58.	Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
59.	Malignant neoplasm of oesophagus	C15
60.	Malignant neoplasm of stomach	C16
61.	Malignant neoplasm of colon	C18
62.	Malignant neoplasm of rectosigmoid junction, rectum, anus and anal canal	C19-C21
63.	Malignant neoplasm of liver and intrahepatic bile ducts	C22
64.	Malignant neoplasm of pancreas	C25
65.	Other malignant neoplasms of digestive organs	C17, C23-C24, C26
66.	Malignant neoplasms of larynx	C32
67.	Malignant neoplasm of trachea, bronchus and lung	C33-C34
68.	Other malignant neoplasms of respiratory and intrathoracic organs	C30-C31, C37-C39
69.	Malignant neoplasm of bone and articular cartilage	C40-C41
70.	Malignant melanoma of skin	C43
71.	Other malignant neoplasm of skin	C44
72.	Malignant neoplasm of mesothelial and soft tissue	C45-C49
73.	Malignant neoplasm of breast	C50
74.	Malignant neoplasm of cervix uteri	C53
75.	Malignant neoplasm of other and unspecified parts of uterus	C54-C55
76.	Other malignant neoplasms of female genital organs	C51-C52, C56-C58
77.	Malignant neoplasm of prostate	C61
78.	Other malignant neoplasms of male genital organs	C60, C62-C63
79.	Malignant neoplasm of bladder	C67
80.	Other malignant neoplasm of urinary tract	C64-C66, C68
81.	Malignant neoplasm of eye and adnexa	C69
82.	Malignant neoplasm of brain	C71
83.	Malignant neoplasm of other parts of central nervous system	C70, C72
84.	Malignant neoplasm of other, ill-defined, secondary, unspecified and multiple sites	C73-C75, C76-C80, C97
85.	Hodgkin's disease	C81

86.	Non-Hodgkin's lymphoma	C82-C85
87.	Leukaemia	C91-C95
88.	Other malignant neoplasms of lymphoid, haematopoietic and related tissue	C88-C90, C96
89.	Carcinoma in situ of cervix	D06
90.	Benign neoplasm of skin	D22-D23
91.	Benign neoplasm of breast	D24
92.	Leiomyoma of uterus	D25
93.	Benign neoplasm of ovary	D27
94.	Benign neoplasm of urinary organs	D30
95.	Benign neoplasm of brain and other parts of central nervous system	D33
96.	Other in situ and benign neoplasms and neoplasms of uncertain and unknown behaviour	D00-D05, D07-D21, D26 D28-D29, D31-D32, D34-D48
97.	Iron deficiency anaemia	D50
98.	Other anaemias	D51-D64
99.	Haemorrhagic conditions and other diseases of blood and blood-forming organs	D65-D76
100.	Certain disorders involving the immune mechanism	D80-D89
101.	Iodine-deficiency related thyroid disorders	E00-E02
102.	Thyrotoxicosis with or without goitre	E05
103.	Other disorders of thyroid	E03-E04, E06-E07
104.	Diabetes mellitus	E10-E14
105.	Malnutrition	E40-E46
106.	Vitamin A deficiency	E50
107.	Other vitamin deficiencies	E51-E56
108.	Sequelae of malnutrition and other nutritional deficiencies	E64
109.	Obesity	E66
110.	Volume depletion	E86
111.	Other endocrine, nutritional and metabolic disorders	E15-E35, E58-E63, E65 E67-E90
112.	Dementia	F00-F03
113.	Mental and behavioural disorders due to use of alcohol	F10
114.	Mental and behavioural disorders due to other substance use	F11-F19
115.	Schizophrenia, schizotypal, and delusional disorders	F20-F29
116.	Mood [affective] disorders	F30-F39
117.	Neurotic, stress-related, and somatoform disorders	F40-F48
118.	Mental retardation	F70-F79
119.	Other mental and behavioural disorders	F04-F09, F50-F69, F80-F99

120. Inflammatory diseases of the central nervous system	G00-G09
121. Parkinson's disease	G20
122. Alzheimer's disease	G30
123. Multiple sclerosis	G35
124. Epilepsy and status epilepticus	G40-G41
125. Migraine and other headache syndromes	G43-G44
126. Transient cerebral ischaemic attacks and related syndromes	G45
127. Nerve, nerve root and plexus disorders	G50-G58
128. Cerebral palsy and paralytic syndromes	G80-G83
129. Other diseases of the nervous system	G10-G13, G21-G26, G31-G32 G36-G37, G46-G47, G60-G73 G90-G99
130. Inflammation of eyelid	H00-H01
131. Conjunctivitis	H10
132. Keratitis	H16
133. Cataract	H25-H26
134. Retinal detachments and breaks	H33
135. Glaucoma	H40-H42
136. Strabismus	H49-H50
137. Disorders of refraction and accommodation	H52
138. Blindness and low vision	H54
139. Other diseases of the eye and adnexa	H02-H06, H11-H15, H17-H22, H27-H32, H34-H36, H43-H48, H51, H53, H55-H59
140. Otitis media and mastoiditis	H65-H67, H70
141. Hearing loss	H90-H91
142. Other diseases of the ear and mastoid process	H60-H62, H68-H69, H71-H83, H92-H95
143. Acute rheumatic fever	I00-I02
144. Chronic rheumatic heart disease	I05-I09
145. Essential (primary) hypertension	I10
146. Other hypertensive disease	I11-I15
147. Acute myocardial infarction	I21-I22
148. Other ischaemic heart disease	I20, I23-I25
149. Pulmonary embolism	I26
150. Conduction disorders and cardiac arrhythmias	I44-I49
151. Heart failure	I50
152. Other heart diseases	I27-I43, I51-I52
153. Cerebral haemorrhage	I60-I62
154. Cerebral infarction	I63
155. Stroke, not specified as haemorrhage or infarction	I64
156. Other cerebrovascular diseases	I65-I69
157. Atherosclerosis	I70
158. Other peripheral vascular diseases	I73
159. Arterial embolism and thrombosis	I74
160. Other diseases of arteries, arterioles and capillaries	I71-I72, I77-I79
161. Phlebitis, thrombophlebitis, venous embolism and thrombosis	I80-I82
162. Varicose veins of lower extremities	I83
163. Haemorrhoids	I84
164. Other diseases of the circulatory system	I85-I99

165. Acute pharyngitis and acute tonsillitis	J02-J03
166. Acute laryngitis and tracheitis	J04
167. Other acute upper respiratory infections	J00-J01, J05-J06
168. Acute bronchitis and acute bronchiolitis	J10-J11
169. Influenza	J12-J13
170. Pneumonia	J14-J20
171. Chronic sinusitis	J32
172. Other diseases of nose and nasal sinuses	J33-J34
173. Chronic disease of tonsils and adenoids	J35
174. Other diseases of upper respiratory tract	J30-J31, J36-J39
175. Bronchitis, emphysema, and other chronic obstructive pulmonary diseases	J40-J44
176. Asthma	J45-J46
177. Bronchiectasis	J47
178. Pneumoconiosis	J60-J65
179. Other diseases of the respiratory system	J21, J66-J99
180. Dental caries	K02
181. Other disorders of teeth and supporting structures	K00-K01, K03-K08
182. Other diseases of the oral cavity, salivary glands and jaws	K09-K14
183. Gastric and duodenal ulcer	K25-K27
184. Gastritis and duodenitis	K29
185. Other diseases of oesophagus, stomach and duodenum	K20-K23, K28, K30-K31
186. Diseases of appendix	K35-K38
187. Inguinal hernia	K40
188. Other hernia	K41-K46
189. Crohn's disease [regional enteritis] and ulcerative colitis	K50-K51
190. Paralytic ileus and intestinal obstruction without hernia	K56
191. Diverticular disease of intestine	K57
192. Other diseases of intestines and peritoneum	K52-K55, K58-K63, K65-K67
193. Alcoholic liver disease	K70
194. Other diseases of the liver	K71-K77
195. Cholelithiasis and cholecystitis	K80-K81
196. Acute pancreatitis and other diseases of the pancreas	K85-K87
197. Other diseases of the digestive system	K82-K83, K90-K93
198. Infections of the skin and subcutaneous tissue	L00-L08
199. Other diseases of the skin and subcutaneous tissue	L10-L99

200. Rheumatoid arthritis and other inflammatory polarthropathies	M05-M14
201. Arthrosis	M15-M19
202. Acquired deformities of limbs	M20-M21
203. Other disorders of joints	M00-M03, M22-M25
204. Systemic connective tissue disorders	M30-M36
205. Cervical, lumbar and other disc disorders	M50-M51
206. Other dorsopathies	M40-M49, M53-M54
207. Soft tissue disorders	M60-M79
208. Disorders of bone density and structure	M80-M85
209. Osteomyelitis	M86
210. Other diseases of the musculoskeletal system and connective tissue	M87-M99
211. Acute and rapidly progressive nephritic syndromes	N00-N01
212. Other glomerular diseases	N02-N08
213. Renal tubulo-interstitial diseases	N10-N16
214. Renal failure	N17-N19
215. Urolithiasis	N20-N23
216. Cystitis	N30
217. Other diseases of the urinary system	N25-N29, N31-N39
218. Hyperplasia of prostate	N40
219. Other disorders of prostate	N41-N42
220. Hydrocele and spermatocele	N43
221. Redundant prepuce, phimosis and paraphimosis	N48
222. Other diseases of male genital organs	N44-N47, N49-N51
223. Disorders of the breast	N60-N64
224. Salpingitis and oophoritis	N70
225. Inflammatory disease of cervix	N72
226. Other inflammatory diseases of female pelvic organs	N71, N73-N77
227. Endometriosis	N80
228. Female genital prolapse	N81
229. Noninflammatory disorders of ovary, fallopian tube and broad ligament	N83
230. Disorders of menstruation	N91-N92
231. Menopausal and other perimenopausal disorders	N95
232. Female infertility	N97
233. Other noninflammatory disorders of female genital tract	N82, N84-N90, N93-N94 N96, N98-N99
234. Spontaneous abortion	O03
235. Medical abortion	O04
236. Other pregnancies with abortive outcome	O00-O02, O05-O08
237. Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium	O10-O16
238. Other maternal care related to fetus and amniotic cavity and possible delivery problems	O30-O43, O47-O48
239. Placenta praevia, premature separation of placenta [abruptio placentae] and antepartum haemorrhage	O44-O46
240. Obstructed labour	O64-O66
241. Postpartum haemorrhage	O72
242. Other complications of pregnancy and delivery	O20-O29, O60-O63, O67-O71 O73-O75

243.	Single spontaneous delivery	O80
244.	Complications predominantly related to the puerperium	O85-O92
245.	Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery	P00-P04
246.	Slow fetal growth, fetal malnutrition and disorders related to short gestation and unspecified low birthweight	P05-P07
247.	Birth trauma	P10-P15
248.	Intrauterine hypoxia and birth asphyxia	P20-P21
249.	Other respiratory disorders in the newborn originating in the perinatal period	P22-P28
250.	Congenital infectious and parasitic diseases	P35-P37
251.	Other infections specific to the perinatal period	P38-P39
252.	Haemolytic disease of fetus or newborn	P55
253.	Other conditions originating in the perinatal period	P08, P29, P50-P54 P56-P95
254.	Spina bifida	Q05
255.	Other congenital malformations of the nervous system	Q00-Q04, Q06-Q07
256.	Congenital malformations of the circulatory system	Q20-Q28
257.	Cleft palate and cleft lip	Q35-Q37
258.	Absence, atresia and stenosis of small intestine	Q41
259.	Other congenital malformations of the digestive system	Q38-Q40, Q42-Q45
260.	Undescended testicle	Q53
261.	Other malformations of the genito-urinary system	Q50-Q52, Q54-Q64
262.	Congenital deformities of hip	Q65
263.	Congenital deformities of feet	Q66
264.	Other congenital malformations and deformations of the musculoskeletal system	Q67-Q79
265.	Other congenital malformations	Q10-Q18, Q30-Q34, Q80-Q
266.	Chromosomal abnormalities not elsewhere classified	Q90-Q99
267.	Abdominal and pelvic pain	R10
268.	Fever of unknown origin	R50
269.	Senility, unspecified	R54
270.	Other symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified	R00-R09, R11-R49 R51-R53, R55-R99
271.	Fractures of specified and multiple body regions	S02, S12, S22, S32, S42, S52, S62, S72, S82, S92, T02, T07, T08
272.	Fracture of skull and facial bones	S02
273.	Fracture of neck, thorax and pelvis	S12, S22, S32, T07
274.	Fracture of femur	S72

275. Other fractures of limb	S42, S52, S62, S82 S92, T08
276. Dislocations, sprains and strains of specified and multiple body regions	S03, S13, S23, S33, S43, S53, S63, S73, S83, S93, T03
277. Injury of eye and orbit	S05
278. Intracranial injury	S06
279. Injury of internal organs	S26-S27, S36-S38
280. Crushing injuries and traumatic amputations of specified and multiple body regions	S07-S08, S17-S18, S28 S38, S47-S48, S57-S58 S67-S68, S77-S78, S87-S88 S97-S98, T04, T05
281. Superficial injury, open wound and other and unspecified injuries of specified and multiple body regions	S00-S01, S09, S10-S11, S14-S16, S19, S20-S21, S24-S25, S29, S30-S31 S33-S35, S39, S40-S41, S44-S46, S49, S50-S51, S54-S56, S59, S60-S61, S64-S66, S69, S70-S71, S74-S76, S79, S80-S81, S84-S86, S89, S90-S91, S94-S96, S99, T00-T01, T06, T09-T11
282. Effects of foreign body entering through natural orifice	T12-T19
283. Burns and corrosions	T20-T32
284. Poisoning by drugs and biological substances	T36-T50
285. Toxic effects of substances chiefly nonmedicinal as to source	T51-T65
286. Maltreatment syndromes	T74
287. Other and unspecified effects of external causes	T66-T73, T75-T78
288. Early complications of trauma and complications of surgical and medical care not elsewhere classified	T79, T80-T88
289. Sequelae of injuries, poisoning and other consequences of external causes	T90-T98
290. Persons encountering health services for examination and investigation	Z00-Z13
291. Asymptomatic human immunodeficiency virus [HIV] seropositive status	Z21
292. Other persons with potential health hazards related to communicable disease	Z20, Z22-Z29
293. Contraceptive management	Z30
294. Supervision of pregnancy and antenatal screening	Z34-Z36
295. Liveborn infants according to type of birth	Z38
296. Postpartum care and examination	Z39
297. Persons encountering health services for specific procedures and aftercare	Z40-Z53
298. Persons encountering health services for other reasons	Z31-Z33, Z37, Z55-Z98

LIST OF DELEGATES AND OTHER PARTICIPANTS

LISTE DES DELEGUES ET AUTRES PARTICIPANTS

(The list of delegations is established in the English alphabetical order)

(La liste des délégations est établie dans l'ordre alphabétique anglais)

ANGOLA

Dr Ana Maria do Silva
Chef du Département national de Statistiques
Ministère de la Santé

AUSTRALIA
AUSTRALIE

Dr Len Smith
Director
Australian Institute of Health
Canberra

Dr R. Wells
Riverlea Homestead
Tharwa

BAHAMAS

Mrs Hanna Gray
Biostatistician
Health Information Coordinating Services
Ministry of Health

BELGIUM
BELGIQUE

Dr W. Aelvoet
Représentant de la Communauté flamande de la Belgique
Responsable des Statistiques d'Etat Civil de la Communauté flamande

Monsieur M. Diament
Attaché à la direction générale de la Santé du Ministère de
la Santé de la Communauté francaise de la Belgique
Responsable des Statistiques, Naissances et Décès

BRAZIL
BRESIL

Monsieur Roberto Augusto Becker
Directeur de la Division nationale de l'Epidémiologie
Ministère de la Santé

Dr R. Laurenti
Faculté de la Santé publique
Université de Sao Paulo

Monsieur M. Lobo da Costa
Secrétariat national pour la Politique de la Santé

BULGARIA
BULGARIE

Dr Ilia Djarkov
Coordinateur de l'utilisation de la CIM en Bulgarie dans le cadre de l'Institut de Médecine sociale

BURUNDI

Dr Raphaël Bitera
Directeur de l'Epidémiologie et des Statistiques sanitaires
Ministère de la Santé publique

Dr Fabien Ngendakumana
Inspecteur général, chargé du Bureau de l'Inspection et de la Planification
Ministère de la Santé publique

CANADA

Dr Philip Banister
Senior Medical Consultant
Health Services and Promotion
Department of National Health and Welfare

Ms Elizabeth Taylor
Head, Nosology Reference Center
Health Division
Statistics Canada

CHINE

Mr Yu Pengcheng
First Secretary, Permanent Mission, Geneva

Adviser - Conseiller

Dr Feng Chuan-yi
Head, WHO Collaborating Centre for Classification of Diseases
Peking Union Medical College Hospital

CUBA

Mme Norma Eneida Rios Hassabot
Directeur des Statistiques
Ministère de la Santé publique

Dr Arnaldo Tejeiro
Fonctionnaire, Division des Statistiques
Ministère de la Santé publique

CYPRUS
CHYPRE

Mr Costas Hadjisavvas
Senior Statistical Assistant
Ministry of Health

DENMARK
DANEMARK

Dr Henning Bay-Nielsen
Adviser
The Danish National Board of Health

Dr Johannes Mosbech
Consultant
The Danish National Board of Health

FINLAND
FINLANDE

Ms Hilkka M.H. Ahonen
Senior Statistician
Central Statistical Office of Finland

Dr Seppo Aro
Senior Medical Officer
National Board of Health

Ms Anneli Ruusinen
Special Researcher
National Board of Health in Finland

FRANCE

Dr Armelle George-Guiton
Médecin-Inspecteur en Chef
Division des Relations internationales
Ministère de la Solidarité, de la Santé et de la Protection sociale

Dr Paulette Maguin
Chef du Centre collaborateur OMS pour la Classification internationale des Maladies en langue française
Institut national de la Santé et de la Recherche Médicale

Monsieur Bernard Morel
Sous-Directeur des Statistiques et Etudes de Santé
Service des Statistiques, Etudes et Systèmes d'Information
Ministère de la Solidarité, de la Santé et de la Protection sociale

GERMAN DEMOCRATIC REPUBLIC
REPUBLIQUE DEMOCRATIQUE ALLEMANDE

Dr Renata Braun
Head of the ICD Division
Institute of Medical Statistics and Data Processing
Berlin

Professor P. Giersdorf
Director of the Institute of Medical Statistics and Data Processing
Berlin

GERMANY, FEDERAL REPUBLIC OF
ALLEMAGNE, REPUBLIQUE FEDERALE D'

Dr E. Berg-Schorn
Medical Officer
German Institute of Documentation and Informatics (DIMDI)
Cologne

Dr H. Dilling
Director of the Clinic for Psychiatry of the University of Lübeck

Mrs Th. Krämer
Head of Statistical Department
Federal Ministry of Youth, Family Affairs, Women and Health

Dr J. Michaelis
Director of the Institute for Medical Statistics and Documentation
Johannes Gutenberg University
Mainz

HUNGARY
HONGRIE

Dr Ivan Forgacs
Chairman, National Committee on the International Classification of Diseases
Ministry of Social Affairs and Health

Dr Andras Javor
Director of National Information Centre for Health Care
Ministry of Social Affairs and Health

Mr G. Menczer
Secretary
National Committee on the International Classification of Diseases

INDIA
INDE

Mrs D. Lahiri
Director, Central Bureau of Health Intelligence
Ministry of Health and Family Welfare

INDONESIA
INDONESIE

Mrs Mardiah Mawardi
Chief, Division of Information for Medical Care
Ministry of Health

Dr W.M. Roan
Chairman, Indonesian Committee for the International Classification of Diseases
Ministry of Health

ISRAEL

Ms Tehila Jouchovitzky
Chief Medical Records Officer
Department of Statistics
Ministry of Health

JAPAN
JAPON

Dr Akio Tanaka
Chairman, Committee on the Statistical Classification of Diseases
Statistical Council
Ministry of Health and Welfare

Dr Yoshie Tanaka
Chief, Office of ICD
Statistics and Information Department
Ministry of Health and Welfare

KUWAIT
KOWEIT

Dr Kamel Al Saleh
Director, Vital Health Statistics
Ministry of Public Health

LUXEMBOURG

Mlle Madeleine Roulleaux
Assistante d'Hygiène sociale
Direction de la Santé

MADAGASCAR

Dr Osee Ralijaona
Chef du Service des Statistiques sanitaires et démographiques
Ministère de la Santé

MALI

Monsieur Djibril Abdou Dicko
Chef de la Section Statistiques sanitaires de la Direction nationale de la Planification et de la Formation sociale et sanitaire
Ministère des Affaires étrangères et de la Coopération internationale

Dr Dramane Sangare
Directeur, Division d'Epidémiologie et Prévention
Ministère de la Santé publique et des Affaires sociales

MALTA
MALTE

Dr Julian Mamo
Epidemiologist
Health Services Unit
Department of Health

MOZAMBIQUE

Dr Luis Valdemar Meneses
Ministère de la Santé

THE NETHERLANDS
PAYS-BAS

Mr J.T.P. Bonte
Head, Division of Health Statistics
Central Bureau of Statistics
Voorburg

Mr W. Ekker
National Council of Public Health
National Committee on Medical Classification and Terminology (WCC)

Dr P.F. de Vries Robbé
National Council of Public Health
Chairman, National Committee on Medical Classification and Terminology (WCC)

Advisers - Conseillers

Mr Y. Berkouwer
Head, Section for Health Informatics Policy
Ministry of Health

Ms L.M. Friden
Chief, Mortality Statistics
Central Bureau for Statistics
Voorburg

Dr W.M. Hirs
National Council of Public Health
Secretary to the National Committee on Medical Classification and Terminology (WCC)

NIGER

Dr Yahaya Amadou
Directeur départemental de la Santé de Tillaberi

Dr Abdou Ibrahim
Directeur des Etablissements de Soins
Ministère de la Santé publique

PORTUGAL

Dr Amélia Leitao
Directeur, Service de l'Information sanitaire de la Santé publique

REPUBLIC OF KOREA
REPUBLIQUE DE COREE

Mr Il Hyun KIM
Director of Population Division
National Bureau of Statistics
Economic Planning Board

Mr Jong-Il KIM
First Secretary, Permanent Mission, Geneva

Dr Abou Beckr Gaye
Directeur du Service national des grandes Endémies

SINGAPORE
SINGAPOUR

Dr S.C. Emmanuel
Director, Research and Evaluation Department
Ministry of Health

Mr Jin Hoe Khoo
Senior Statistician
Research and Evaluation Department
Ministry of Health

Associate Professor Hin-Peng Lee
Head, Department of Community, Occupational and Family Medicine
National University of Singapore

SPAIN
ESPAGNE

Dr D. José Miguel Mata de la Torre
Chargé du Service des Statistiques sanitaires
Ministère de la Santé et de la Consommation

SWEDEN
SUEDE

Ms. Yvonne Lönn
Head, Cause-of-death Statistics
Statistics Sweden

Dr Hans Peterson
Head of Division, Medical Informatics
Stockholm County Council

Professor Björn Smedby
Professor, Health Services Research
University Hospital
Uppsala

Mr Dag Ch. W. Swenson
Deputy Head of Division, Planning and Health Statistics
National Board of Health and Welfare

SWITZERLAND
SUISSE

Dr T. Spuhler
Chef de la Section de Statistique sanitaire
Office fédéral de la statistique

THAILAND
THAILANDE

Dr Supachai Rerks-Ngarm
Chief, Outbreak Investigation Section
Division of Epidemiology
Ministry of Health

UGANDA
OUGANDA

Professor J.W. Mugerwa
Dean, Medical School
Makerere University
Kampala

Mr Amos Nzabanita
Biostatistician/Assistant Director of Planning
Ministry of Health

UNION OF SOVIET SOCIALIST REPUBLICS (USSR)
UNION DES REPUBLIQUES SOCIALITES SOVIETIQUES (URSS)

Dr G.F. Tserkovnyi
Chief, Department of Health Statistics
Ministry of Health of the USSR

UNITED ARAB EMIRATES
EMIRATS ARABES UNIS

Mr Abdul Razaq Ameri
Director of Health Centres
Ministry of Health

UNITED KINGDOM
ROYAUME-UNI

Dr S.K. Cole
Common Services Agency for the Scottish Health Service
Edinburgh

Dr A.J. Fox
Chief Medical Statistician
Office of Population Censuses and Surveys

Dr D.A.Holt
Senior Medical Officer
Department of Health

UNITED STATES OF AMERICA
ETATS-UNIS D'AMERIQUE

Mr C. Ross Anthony
Associate Administrator
Health Care Financing Administration
Department of Health and Human Services

Dr Ronald Blankenbaker
Chairman, National Committee on Vital and Health Statistics

Dr John Decker
Director, Clinical Center
National Institutes of Health

Dr Manning Feinleib
Director, National Center for Health Statistics
Centers for Disease Control
Hyattsville

Dr William Felts
Division of Rheumatology
The George Washington University
Washington, D.C.

Ms Rita Finnegan
Executive Director
American Medical Record Association

Ms Donna Ganzer
American Hospital Association
Chicago

Mr Robert A. Israel
Deputy Director, National Center for Health Statistics
Centers for Disease Control
Hyattsville

Advisers - Conseillers

Ms Patricia E. Brooks
Director, Medical Coding Policy Staff
Health Care Financing Administration
Baltimore

Ms Sue Meads
Senior Adviser
National Center for Health Statistics

Mrs Constance Percy
Expert on Classification and Nomenclature of Neoplasms
National Cancer Institute

Miss Karel Weigel
Administrator, Medical Records
Mayo Clinic
Rochester

VENEZUELA

Dr J.M. Avilan-Rovira

REPRESENTATIVES OF THE UNITED NATIONS AND RELATED ORGANIZATIONS
REPRESENTANTS DES NATIONS UNIS ET DES INSTITUTIONS APPARENTEES

Mrs Alice Clague
United Nations Statistical Office, New York

Mr Y.C. Yu
United Nations Statistical Office, New York

SPECIALIZED AGENCIES
INSTITUTIONS SPECIALISEES

Dr A. David
Organisation internationale du Travail

REPRESENTATIVES OF NONGOVERNMENTAL ORGANIZATIONS
REPRESENTANTS DES ORGANISATIONS NONGOUVERNEMENTALES

INTERNATIONAL ASSOCIATION OF CANCER REGISTRIES
ASSOCIATION INTERNATIONALE DES REGISTRES DU CANCER

Dr Franco Berrino

WORLD FEDERATION OF THE DEAF
FEDERATION MONDIALE DES SOURDS

M. Jean-Pierre Guérin

INTERNATIONAL EPIDEMIOLOGICAL ASSOCIATION
ASSOCIATION INTERNATIONALE D'EPIDEMIOLOGIE

Dr Johannes Mosbech

WORLD ORGANIZATION OF NATIONAL COLLEGES, ACADEMIES AND ACADEMIC ASSOCIATIONS OF GENERAL PRACTITIONERS/FAMILY PHYSICIANS

Dr Jack Froom

INTERNATIONAL FEDERATION OF GYNECOLOGY AND OBSTETRICS
FEDERATION INTERNATIONALE DE GYNECOLOGIE ET D'OBSTETRIQUE

Professor J. Walker

WORLD HYPERTENSION LEAGUE
LIGUE MONDIALE CONTRE L'HYPERTENSION

Dr T. Strasser

INTERNATIONAL ORGANIZATION OF HEALTH RECORDS ORGANIZATIONS
FEDERATION INTERNATIONALE DES ASSOCIATIONS DU DOSSIER DE SANTE

Mrs E. Taylor

INTERNATIONAL FEDERATION FOR PREVENTIVE AND SOCIAL MEDICINE
FEDERATION INTERNATIONALE DE MEDICINE PREVENTIVE ET SOCIALE

Dr Albert Weber

WORLD FEDERATION OF NEUROLOGY
FEDERATION MONDIALE DE NEUROLOGIE

Sir John Walton

WORLD PSYCHIATRIC ASSOCIATION
ASSOCIATION MONDIALE DE PSYCHIATRIE

Dr Juan E. Mezzich

REHABILITATION INTERNATIONAL

Dr H.J. Hachen

COUNCIL FOR INTERNATIONAL ORGANIZATIONS OF MEDICAL SCIENCES
CONSEIL DES ORGANISATIONS INTERNATIONALES DES SCIENCES MEDICALES

Dr Z. Bankowski

INTERNATIONAL UNION AGAINST THE VENEREAL DISEASES AND THE TREPONEMATOSES
UNION INTERNATIONALE CONTRE LES MALADIES VENERIENNES ET LES TREPONEMATOSES

Dr G.M. Antal

REGIONAL OFFICES
BUREAUX REGIONAUX

Dr Binh Khanh Nguyen
Regional Adviser on Epidemiological Surveillance and Health Situation and Trend Assessment
WHO Regional Office for Africa, Brazzaville

Dr M. Gersenovic
Regional Adviser on the International Classification of Diseases
WHO Regional Office for the Americas, Washington, D.C.

Mr M. Ouakrim
Regional Adviser on Epidemiological Surveillance and Health Situation and Trend Assessment
WHO Regional Office for the Eastern Mediterranean, Alexandria

Dr H. Hana Hermanova
Regional Officer, Elderly, Disability and Rehabilitation
WHO Regional Office for Europe, Copenhagen

Dr R. Prokhorskas
Statistician, Epidemiology and Statistics
WHO Regional Office for Europe, Copenhagen

TEMPORARY ADVISERS TO THE SECRETARIAT
CONSEILLERS TEMPORAIRES AU SECRETARIAT

Professor W. Jänisch (German Democratic Republic)

Mr T. Kruse (Denmark)

Dr K. Kupka (France)

Dr J. Leowski (Poland)

Ms R.M. Loy (United Kingdom)

Mr R.H. Seeman (United States of America)

SECRETARIAT

Dr J.-P. Jardel
Assistant Director-General

Dr H.R. Hapsara
Director
Division of Epidemiological Surveillance and Health Situation and Trend Assessmen

Dr J.-C. Alary
Chief Medical Officer
Development of Epidemiological and Health Statistical Services

Dr G. Brämer (Secretary)
Medical Officer
Development of Epidemiological and Health Statistical Services

Mr A. L'Hours
Technical Officer
Development of Epidemiological and Health Statistical Services

MODIFICATIONS TO DRAFT PROPOSALS OF CHAPTERS

Written submissions from several countries regarding minor technical and editorial nges to the draft chapters as presented to the Conference were accepted by the retariat for follow up. Technical matters related to specific inclusion and exclusion ms were raised during the Conference and clarification was provided by the retariat. Certain issues related to the addition of more 4th character subcategories the draft chapters and others of a more significant nature were also raised. Some of se issues were resolved during the course of the Conference with some others requiring ther consideration by the Secretariat.

With respect to Chapter I, in the still evolving area of human immunodeficiency virus V) diseases (B20-B24), the related abnormal laboratory findings (R75.0) and associated sons for contact with health services (Z21) a special working party met to discuss cerns regarding the draft categories and subcategories as proposed. Amendments to the les of these categories and subcategories were proposed by the Working Party and epted by the Conference. The Conference also accepted the inclusion of a note for the ck of codes B20-B24, to indicate that the 4th character subcategories are provided for ional use where it is not possible or not desired to double code or multiple code the ditions identified in these subcategories.

In Chapter IV, it was agreed that the notes for interpretation/application of egories E43 and E44 required modification for inclusion in ICD-10.

In Chapter V, it was agreed appropriate to include a note stating that sexual entation alone should not be considered in assigning codes from category F66.

In Chapter VI, it was agreed not to add 4th character subcategories at G35 but rather leave this for an application at the 5th character level.

In Chapter X, the need for the category J46 especially for mortality coding was ıfirmed.

In Chapter XII, the movement of category L27 and consequent renumbering of L28-L30 ; accepted.

In Chapter XIII, a request to transfer "other overlap syndromes" to another category ıuired further follow up.

In Chapter XIV, it was agreed that the chemical composition of calculi in N20 would be possible through an application at the 5th character level. A request for placement or identification of "renal vein occlusion" required further follow up. Follow up was also required regarding possible transfer of all, or part of R32 and R33 to Chapter XIV.

In Chapter XVI, it was agreed that a note should be added at the beginning of the chapter to clarify its intended use. It was confirmed that birth asphyxia codes should not be assigned with mention only of Apgar scores without mention of the asphyxia. A request for a 3-character category for "deadborn fetus" was accepted.

In Chapter XVII, it was agreed that a note should be added to explain the approach used in relation to the terms "malformation" and "deformation" in relation to the musculoskeletal categories (Q50-Q79).

In Chapter XVIII, it was agreed to rearrange and combine the first two blocks of signs and symptoms (R00-R09) into a single block.

In Chapter XIX, a request for reorganizing certain categories and subcategories in the block T51-T65 was referred for further study, especially related to the effect on mortality tabulation over time.

In Chapter XX, it was agreed that although it was of interest to identify accidents involving mopeds, there was no international agreement on the difference between mopeds and motorcycles.

In Chapter XXI, the Conference agreed to the inclusion of the glossary definitions as proposed in WHO/ICD10/REV.CONF/89.12. A slight modification in the note introducing the chapter was also accepted. A change in title for category Z03 was left for follow up. In order to provide space for the identification of immunization against Hepatitis B as well as future expansion, it was agreed to allocate Z24 and Z25 to immunization against viral diseases. The categories Z25 to Z27 in the draft would then be renumbered. Category Z28 would become a subcategory. A request for identification of hospital and non-hospital birth in relation to Z38 required further follow up since several categories would be needed if this could not be accommodated as a 5th character. Several requests for changes in titles that could affect the intended content were accepted by the Secretariat for follow up as was a request to move certain accentuated personality traits from F61 to this chapter.

This draft report has, for expediency, been prepared, numbered and titled in the same format as the agenda adopted for the Conference.

The Rapporteur and Secretariat wish the approval of the Conference to organize and renumber the final report and annexes in a format suitable for presentation to the World Health Assembly and for subsequent inclusion in the introductory section of ICD-10.

For this reason as well, an additional item (12), not yet actually approved as it has been set out, has been added for proposed adoption and inclusion in the final report.

For the most part, Annex VII has been restricted, based on the judgement of the Rapporteur, to matters related to Chapters, to blocks of categories and to categories. Issues related to inclusion terms, exclusion notes and subcategories that do not appear in the Annex have been noted for agreed upon action or further review by the Secretariat in the process of finalizing the chapters of ICD-10. (Annex VII will not form part of the report as published in ICD-10). All written comments and questions received by the Secretariat as well as those recorded during the Conference will be considered in this process.

WORLD HEALTH ORGANIZATION
ORGANISATION MONDIALE DE LA SANTE

WHO/ICD10/REV.CONF/89.2

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

CONFERENCE INTERNATIONALE POUR LA DIXIEME REVISION
DE LA CLASSIFICATION INTERNATIONALE DES MALADIES

Genève, 26 septembre - 2 octobre 1989

Provisional List of Documents
Liste provisoire des Documents

WHO/ICD10/REV.CONF/89.1	-	Provisional agenda
	-	Ordre du jour provisoire
WHO/ICD10/REV.CONF/89.2	-	List of documents
	-	Liste des documents
WHO/ICD10/REV.CONF/89.3	-	Circulation of the final proposal for the Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10)
	-	Dixième Révision de la Classification Statistique internationale des Maladies et des Problèmes de Santé connexes - distribution du texte du projet final
WHO/ICD10/REV.CONF/89.4	-	The "Dagger and Asterisk" system for dual classification of certain diagnostic statements in ICD-10
	-	Le système des dagues and des astérisques pour la double classification de certains diagnostics dans la CIM-10
WHO/ICD10/REV.CONF/89.5	-	Medicosocial screening and multidimensional assessment of the elderly - need for linked classifications
	-	Dépistage médico-social et bilan fonctionnel multidimensionnel des personnes âgées - nécessité de coordonner les classifications
WHO/ICD10/REV.CONF/89.6	-	International Nomenclature of Diseases
	-	Nomenclature internationale des Maladies
WHO/ICD10/REV.CONF/89.7	-	From lay reporting to community-based health information
	-	De la notification d'informations sanitaires par un personnel non médical au système communautaire d'information sanitaire
WHO/ICD10/REV.CONF/89.8	-	Status and development of the International Classification of Impairments, Disabilities and Handicaps
	-	Classification internationale des handicaps : déficiences, incapacités et désavantages

WHO/ICD10/REV.CONF/89.9	-	Special tabulation lists for ICD-10
	-	Listes spéciales pour la mise en tableaux pour la CIM-10
WHO/ICD10/REV.CONF/89.10	-	Morphology of neoplasms
	-	Morphologie des tumeurs
WHO/ICD10/REV.CONF/89.11	-	Definitions, standards and reporting requirements related to maternal and child health and the perinatal period
	-	Definitions, normes et conditions de notification relatives à la santé maternelle et infantile et a là période périnatale
WHO/ICD10/REV.CONF/89.12	-	Proposals for glossary definitions for some subcategories of Z60, Z61, Z62, Z63 in the chapter on Factors influencing health status and contact with health services
	-	Glossaire - definitions proposées pour certaines subdivisions des catégories Z60, Z61, Z62 et Z63 du chapitre sur les facteurs influant sur l'état de santé
WHO/ICD10/REV.CONF/89.13	-	Mortality - certification and rules for classification
	-	Mortalité - certificat médical et règles de classement
WHO/ICD10/REV.CONF/89.14	-	Morbidity - definitions and rules for classification
	-	Morbidité - instructions pour l'enregistrement et le codage
WHO/ICD10/REV.CONF/89.15	-	The family of disease and health related classifications
	-	La famille des classifications des maladies et autres classifications sanitaires connexes
WHO/ICD10/REV.CONF/89.16	-	Recommended glossary definitions for ICD-10 categories E43 and E44 - unspecified severe protein-energy malnutrition, protein-energy malnutrition of moderate and mild degree - in the chapter on endocrine, nutritional and metabolic diseases
	-	Propositions de glossaire - définitions pour les catégories E43 et E34 de la CIM-10 malnutrition protéino-énergétique grave non spécifée, malnutrition protéino-énergétique légère ou modérée - chapitre des maladies endocriniennes, nutritionnelles et métaboliques
WHO/ICD10/REV.CONF/89.17	-	From the first steps in lay reporting to the current concept of community based information in the region of the Americas
	-	Des premiers essais de notifications d'informations sanitaires par un personnel sanitaire aux concepts actuels d'information communautaire dans la Région des Amériques
ICD10/DISCUSSION DOCUMENT	-	Report on the system for the auto-translation of the ICD-10 from English to Japanese by computer
DES/ICD10/REV.BACKG/89.1	-	International Statistical Classification of Diseases and Related Health Problems

	-	Chapitre I :	Certaines maladies infectieuses et parasitaires
WHO/ICD10/REV.PROP/89.2	-	Chapter II:	Neoplasms
	-	Chapitre II :	Tumeurs
WHO/ICD10/REV.PROP/89.3	-	Chapter III:	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism
	-	Chapitre III :	Maladies du sang et des organes hématopoïétiques et troubles du système immunitaire
WHO/ICD10/REV.PROP/89.4	-	Chapter IV:	Endocrine, nutritional and metabolic diseases
	-	Chapitre IV :	Maladies endocriniennes, nutritionnelles et métaboliques
WHO/ICD10/REV.PROP/89.5	-	Chapter V:	Mental and behavioural disorders (F)
	-	Chapitre V :	Troubles mentaux et du comportement
WHO/ICD10/REV.PROP/89.6	-	Chapter VI:	Diseases of the nervous system (G)
	-	Chapitre VI :	Maladies du système nerveux
WHO/ICD10/REV.PROP/89.7	-	Chapter VII:	Diseases of the eye and adnexa
	-	Chapitre VII :	Maladies de l'oeil et de ses annexes
WHO/ICD10/REV.PROP/89.8	-	Chapter VIII:	Diseases of the ear and mastoid process
	-	Chapitre VIII :	Maladies de l'oreille et de l'apophyse mastoïde
WHO/ICD10/REV.PROP/89.9	-	Chapter IX:	Diseases of the circulatory system (I)
	-	Chapitre IX :	Maladies de l'appareil circulatoire
WHO/ICD10/REV.PROP/89.10	-	Chapter X:	Diseases of the respiratory system (J)
	-	Chapitre X :	Maladies de l'appareil respiratoire
WHO/ICD10/REV.PROP/89.11	-	Chapter XI:	Diseases of the digestive system (K)
	-	Chapitre XI :	Maladies du tube digestif
WHO/ICD10/REV.PROP/89.12	-	Chapter XII:	Diseases of the skin and subcutaneous tissue
	-	Chapitre XII :	Maladies de la peau et du tissu cellulaire sous-cutané
WHO/ICD10/REV.PROP/89.13	-	Chapter XIII:	Diseases of the musculoskeletal system and connective tissue (M)
	-	Chapitre XIII :	Maladies du système ostéo-articulaire des muscles et du tissu conjonctif
WHO/ICD10/REV.PROP/89.14	-	Chapter XIV:	Diseases of the genitourinary system
	-	Chapitre XIV :	Maladies des organes génito-urinaires

	-	Chapitre XV :	Grossesse, accouchement et puerpéralité
WHO/ICD10/REV.PROP/89.16	-	Chapter XVI:	Certain conditions originating in the perinatal period
	-	Chapitre XVI :	Certaines affections dont l'origine se situe dans la période périnatale
WHO/ICD10/REV.PROP/89.17	-	Chapter XVII:	Congenital malformations, deformations, and chromosomal abnormalities (Q)
	-	Chapitre XVII :	Malformations congénitales, déformations et anomalies chromosomiques
WHO/ICD10/REV.PROP/89.18	-	Chapter XVIII:	Symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified
	-	Chapitre XVIII :	Symptômes, signes et résultats anormaux d'examens cliniques et de laboratoire non classés ailleurs
WHO/ICD10/REV.PROP/89.19	-	Chapter XIX:	Injury, poisoning and certain other consequences of external causes (S,T)
	-	Chapitre XIX :	Lésions traumatiques, empoisonnements et certaines autres conséquences de causes externes
WHO/ICD10/REV.PROP/89.20	-	Chapter XX:	External causes of morbidity and mortality
	-	Chapitre XX :	Causes externes de morbidité et de mortalité
WHO/ICD10/REV.PROP/89.21	-	Chapter XXI:	Factors influencing health status and contact with health services
	-	Chapitre XXI :	Facteurs influant sur l'état de santé et motifs de recours aux services de santé

= = =

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE
WHO/ICD10/REV.CONF/89.3

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

CIRCULATION OF THE FINAL PROPOSAL FOR THE TENTH REVISION OF THE INTERNATIONAL STATISTICAL CLASSIFICATION OF DISEASES AND RELATED HEALTH PROBLEMS (ICD-10)

The International Classification of Diseases (ICD) has been for many decades, under various names, the essential tool for national and international comparability in public health.

Originally intended to be used primarily for the classification of causes of death, its scope has been progressively widening to include coding and tabulation of causes of morbidity as well as medical record indexing and retrieval. This statistical tool has been customarily revised every 10 years in order to keep up with the advances of medicine.

The World Health Organization has been responsible for the organization, coordination and execution of activities related to the ICD since its creation in 1948 (Sixth Revision of the ICD). In the build-up to the Tenth Revision a number of meetings have been held under the auspices of WHO that evaluated the experience of countries in the use of ICD-9, discussed new requirements and considered the direction the classification should take in the future. The Preparatory meeting on ICD-10 convened by WHO in 1983 and the first Expert Committee on ICD-10 in 1984 recommended that the well-established pattern of the ICD should be retained in order to preserve its function as a basic tool for statistical tabulations and comparisons of the incidence of diseases in countries at the same point in time and changes in incidence within and between countries over long periods. It was further recommended that ICD-10 should be based on an alphanumeric coding scheme and developed in a way that it could act as the core of a future family of classifications.

Twice in the revision process leading up to ICD-10, WHO has carried out a wide-ranging and in-depth process of consultation, at significant cost and has sought the views of WHO Member States, WHO Collaborating Centres for Classification of Diseases, nongovernmental organizations (NGOs) in official relations with WHO, and other interested groups and individuals.

In August 1984 a first draft proposal for ICD-10 containing three-character category titles was circulated to obtain views on the proposed alphanumeric structure, the relative number of categories provided for each chapter and the amount of space left for future expansion and revision within chapters.

The vast majority of replies supported the alphanumeric approach and were in agreement with the general direction that the Tenth Revision was taking. While it was known that the alphanumeric scheme of the future ICD would cause some difficulties and increased costs, particularly in computer processing, the advantages of the expanded coding frame were considered to outweight the disadvantages.

A second draft proposal for ICD-10 containing both three- and four-character category titles was distributed in July 1986 to solicit comments on the content of chapters. This second draft incorporated comments on the first draft proposal; recommendations of the annual meetings of WHO Collaborating Centres for Classification of Diseases; input from WHO divisions and units; and contributions from temporary advisers and other sources.

Following the circulation of the second draft proposal, a large number of comments and recommendations for amendment were submitted to WHO. All were carefully studied with the assistance of specialist consultants and the eight WHO Collaborating Centres for Classification of Diseases located in institutions in Beijing (for Chinese language users), London and Washington, DC (for English) Paris (for French), Sao Paulo (for Portuguese), Moscow (for Russian), Uppsala (for the Nordic countries) and Caracas (for Spanish).

Wherever possible, the suggestions received were incorporated into a revision proposal which was presented to the Expert Committee on ICD-10 held in Geneva in November 1987 and further discussed and amended in the meetings of Heads of WHO Collaborating Centres for Classification of Diseases in 1988 and 1989. The final revision proposal that is accompanying this document will be presented to the International Conference for the Tenth Revision of ICD, to be held in Geneva from 26 September to 2 October 1989. The proposal has been structured so that data requested by WHO for international comparisons can be based exclusively on the three-character categories.

The dagger(+) and asterisk(*) system of dual classification that was introduced at the Ninth Revision has been refined and extended. The asterisk classification is contained in homogeneous categories at the three-character level for ease of use and interpretation.

The proposal for the Tenth Revision contains 21 chapters (see Annex), uses all letters of the Roman alphabet except U and includes the two former supplementary classifications of External causes of injury and poisoning and Factors influencing health status and contact with health services as a part of the main classification. The letter U has been left unused as it falls between the chapters on injuries and external causes where it is felt that expansion might be required in future revisions.

New chapters have been created for Diseases of the eye and adnexa and Diseases of the ear and mastoid process which were included in the chapter on Diseases of the nervous system and sense organs in ICD-9.

Disorders involving the immune mechanism which were formerly classified in the same chapter as endocrine, nutritional and metabolic diseases have been significantly extended and transferred to the chapter on Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism.

In order to maximize the use of the available space within the coding frame the chapter on Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism follows the Neoplasms chapter with which it shares the letter D.

The chapters of Diseases of the genitourinary system; Pregnancy, childbirth and the puerperium; Certain conditions originating in the perinatal period; and Congenital malformations, deformations, and chromosomal abnormalities are brought together as contiguous chapters. The titles of some chapters, including the chapter on Mental and behavioural disorders, have been amended in order to better reflect their content.

Particularly the chapters on Injury, poisoning and certain other consequences of external causes; External causes of morbidity and mortality; Factors influencing health status and contact with health services; and Mental and behavioural disorders have been completely restructured in order to meet the needs of users of those data.

The newly recommended classification for Human immunodeficiency virus [HIV] disease which was elaborated at a consultation convened by WHO in November 1988 is contained in categories B20-B24 of the chapter on Certain infectious and parasitic diseases.

As ICD-10 will cover more than just categories of diseases the title of the future ICD will be the International Statistical Classification of Diseases and Related Health Problems, but the convenient abbreviation "ICD" will be retained.

Given the exhaustive consultation and scrutiny which these proposals have undergone (with the exception of HIV-classification), it is hoped that the International Conference will accept this without further amendment except for the corrections of errors and omissions; any substantial amendment would inevitably result in a delay in the introduction of the Tenth Revision which is scheduled for 1993.

Accompanying this document are the final proposals for the Tenth Revision for all chapters except Chapter V (Mental and behavioural disorders), Chapter XIX (Injury, poisoning and certain other consequences of external causes) and Chapter XX (External causes of morbidity and mortality). These will be circulated at a later date.

It is the intention of WHO to publish the ICD-10 not only as a four-character version with Alphabetical Index but also to provide a separate volume including the classification at the three-character level with inclusion and exclusion terms, definitions and rules and an alphabetical index. This version will be presented to the International Conference in Geneva.

The International Conference will be held in the Executive Board Building of the World Health Organization in Geneva and will commence at 10.00 hrs on Tuesday, 26 September 1989. To ensure that they will be given the floor when appropriate and to enable the Chairman to allocate the limited available time, delegates are asked on arrival to give the Secretariat a brief indication of any agenda items on which they might wish to intervene.

Outline of ICD-10 draft proposals

Chapters		Range of codes
I	Certain infectious and parasitic diseases	A00-B99
II	Neoplasms	C00-D48
III	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89
IV	Endocrine, nutritional and metabolic diseases	E00-E90
V	Mental and behavioural disorders	F00-F99
VI	Diseases of the nervous system	G00-G99
VII	Diseases of the eye and adnexa	H00-H59
VIII	Diseases of the ear and mastoid process	H60-H95
IX	Diseases of the circulatory system	I00-I99
X	Diseases of the respiratory system	J00-J99
XI	Diseases of the digestive system	K00-K93
XII	Diseases of the skin and subcutaneous tissue	L00-L99
XIII	Diseases of the musculoskeletal system and connective tissue	M00-M99
XIV	Diseases of the genitourinary system	N00-N99
XV	Pregnancy, childbirth and the puerperium	O00-O99
XVI	Certain conditions originating in the perinatal period	P00-P95
XVII	Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99
XVIII	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99
XIX	Injury, poisoning and certain other consequences of external causes	S00-T98
XX	External causes of morbidity and mortality	V00-Y98
XXI	Factors influencing health status and contact with health services	Z00-Z98

- - -

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.4

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

THE "DAGGER AND ASTERISK" SYSTEM FOR DUAL CLASSIFICATION OF CERTAIN DIAGNOSTIC STATEMENTS IN ICD-10

by

Unit of Development of Epidemiological and Health Statistical Services

Historical background

The Ninth Revision of the International Statistical Classification of Diseases (ICD-9) contained as an innovation a special provision for the classification of diagnostic statements in which there is a dual element of information concerning both a generalized underlying disease and a manifestation or complication in a particular organ or site. The structure of ICD has traditionally resulted in such diagnostic statements being classified in the chapter appropriate to the underlying disease, usually in one of its chapters for special groups of diseases such as those for infectious and parasitic diseases or endocrine, metabolic and nutritional diseases, which have precedence in assignment over the chapters related to body systems.

During the preparations for the Ninth Revision, specialists and those concerned with information needs for health-care management expressed their interest in a change of the primary assignment of dual-element conditions. It was felt that in those conditions (e.g. diabetic cataract) the manifestation or complication in the organ or site reflected in a better way the reason why the patient was receiving treatment at that particular time than the underlying disease did. However, such a change was not acceptable for the traditional use of the ICD in epidemiology where the prime emphasis has to be the underlying disease. Accordingly, provision was made for two codes for dual-element conditions, one in the chapter related to the underlying disease, marked with a dagger (+) and one in the chapter relating to the condition in the organ or site, marked with an asterisk (*). The system provided flexibility and enabled retrieval or tabulation of such cases according to the condition being treated without disturbing the traditional way of presenting such conditions in tabulations with an epidemiological-type purpose.

The dagger and asterisk system in ICD-10

After lengthy discussion of the pros and cons of the system at ICD-9 evaluation meetings, it was considered that the advantages justified its being continued in the Tenth Revision of ICD. In spite of its usefulness there were some criticisms on the grounds of incompleteness and inconsistency and some difficulties in processing caused by the fact that the dagger and asterisk symbols were applied to the same codes as those used for conditions to which the system did not apply.

In preparing the proposals for ICD-10 an attempt has been made to implement the system more fully and to meet these criticisms.

Separate asterisk categories are recommended for appropriate conditions when they occur "... in diseases classified elsewhere", indicating that the traditional placing of the ICD code would have been in another chapter. Some of these asterisk categories and their subcategories are specific to a particular underlying cause and manifestation combination, others have more general titles and include a number of different cause and manifestation combinations. An attempt has been made to list items classifiable to these categories as completely as possible but consistently with normal ICD rules of presentation i.e. inclusion terms relate to conditions which occur commonly and others will be shown in the alphabetical index.

It was not found feasible to provide separate dagger categories for the underlying cause of conditions for which asterisk categories were provided elsewhere in the classification. This would have resulted in two categories for each of very many conditions, occupying a lot of space in the structure of the classification and producing a very confused-looking classification for the presentation of statistics for the underlying causes.

Asterisk categories have been interspersed throughout the classification, where appropriate, usually at the end of the range of non-asterisk categories for the same conditions. Thus, in Chapter VIII (Diseases of the eye), which is commonly affected in a wide range of underlying diseases, there is an asterisk category at the end of each block of categories, i.e. H03*, "Disorders of eyelid in diseases classified elsewhere", H06*, "Disorders of lacrimal system and orbit in diseases classified elsewhere", and so on. On the other hand, in Chapter IX, (Diseases of the circulatory system) many of the categories relate to conditions which only infrequently, if ever, occur as a consequence of another disease, so asterisk categories will be found only for the specific conditions such as pericarditis (I32*), endocarditis and other heart valve disorders (I39*) and myocarditis (I41*), which do occur in this way; there are some more general categories such as I52*, "Other heart diseases in diseases classified elsewhere", to take care of the more infrequent instances where an asterisk code is needed.

The principles which have been adopted in applying the system in the recommendations for ICD-10 are in general the same as those enunciated for ICD-9 though they can now be stated more simply. The system is to be applied to conditions which are not recognized constituents of a disease entity as it first presents but which arise later as manifestations in, extension to, or complications in another part of the body, producing a condition which, as a medical-care problem in its own right, would be classifiable elsewhere in ICD. However, it is not applied to diagnostic statements referring to disease descriptions such as "Viral meningitis", "Trachoma" etc., which refer to diseases which although relating to a particular organ, are of themselves classifiable to the chapter of Infectious and parasitic diseases. Where the same organism produces a variety of disease pictures, as meningococci, enteroviruses or adenoviruses, the asterisk coding is used for all the different conditions produced. In the case of a disease such as Tuberculosis (A15-A19), which is primarily a respiratory disease but may also affect other organs, the dagger and asterisk system is not applied to respiratory conditions, but the system does apply when other organs are affected. Similarly intestinal infectious diseases (A00-A09) do not have the system applied to digestive system conditions but do to complications such as Typhoid endocarditis (A01.0+, I39.-*).

Where infections with a predominantly sexual mode of transmission are concerned (A50-A64), dagger and asterisk coding is not provided for the sites of the initial lesions, but it is for later stages of the disease, even in the upper part of the genito-urinary tract, since these represent serious medical-care problems which are not part of the picture of the initial disease. The principles need to be clearly understood by those using the classification. It was never intended that the coding of "manifestations" should lead to systematic separate coding of all facets of diseases and misconceptions on this score may have led to some of the complaints of incompleteness in ICD-9.

It is proposed that, as was the case with ICD-9, the dagger code for the dual-element conditions should always be used, and the asterisk code should be added if required by the rules of the respective coding or data-collection scheme. It is recommended that asterisk codes should not be used alone; the dagger code in combination with the asterisk code provides additional specificity for which there would be insufficient space in the classification to try to incorporate this information in the asterisk categories themselves.

In the presentation of the dagger and asterisk system proposed for ICD-10, there is a fairly comprehensive, but not exhaustive, listing in the asterisk categories of the conditions which would be classified there, showing the appropriate dagger codes. The same is true when categories for underlying causes of dual-element conditions to which the dagger and asterisk system applies contain any subclassification by, or reference to, the organ or site involved. The dagger sign is attached to appropriate codes, the conditions listed in the relevant asterisk categories are repeated, and the relevant asterisk codes are given (see A17+ Tuberculosis of nervous system). Where there is no reference to organs or sites affected, however, the asterisk sign does not appear and possibly relevant asterisk codes are <u>not</u> listed, even though the category's code may be used as a dagger code in the system and will be shown in relevant asterisk categories. The style of presentation is otherwise the same as described on pages XXVIII-XXIX of the Introduction to ICD-9 (Volume 1).

When an underlying disease to which the system applies affects a particular organ or site, the resultant condition may sometimes be described in a variety of ways, and where there is a choice of several asterisk categories, the most appropriate one should be used, whether or not the condition is specifically listed. Thus it will be seen in category A18.5+ that a number of different eye conditions can occur in tuberculosis, and the most usual specific ones are shown. Any specific conditions not listed may be coded to the correct asterisk category and a general description Tuberculous oculopathy should have the asterisk code H58.8*. The alphabetical index will usually indicate the codes for dual-element diagnostic terms which, though not listed as inclusion terms, do occur. However, it is not possible for the index to be exhaustive and coders will have to be trained how to arrive at appropriate codes, and how to determine whether or not the term is one to which the dagger and asterisk system should be applied.

system in the proposals for ICD-10, many difficulties arise in attempting to be comprehensive and consistent. Some of the specialists who were asked for advice were more inclined than others to recommend asterisk categories.

The system as recommended is the best that can be offered at the present time and should be a workable one; the new special asterisk categories are seen as an improvement. Nevertheless, it has to be recognized that it is limited. On the other hand it has also to be realized that if in future revisions an attempt were to be made greatly to extend the system, it would be difficult if not impossible to provide sufficient space in the structure of the classification for all the special asterisk categories that would be needed and the whole classification would become too complicated. The solution would then most likely be to recommend double coding of dual-aspect diagnoses probably as part of a more general multiple-condition coding scheme.

= = =

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.5

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

MEDICOSOCIAL SCREENING AND MULTIDIMENSIONAL ASSESSMENT OF THE ELDERLY - NEED FOR LINKED CLASSIFICATIONS

by

Dr Hana Hermanova, Regional Officer for Elderly, Disability and Rehabilitation,
WHO Regional Office for Europe

1. Introduction

Demographic changes predicted by the United Nations suggest that the numbers of elderly persons will increase considerably by the end of this century. For details, please look at tables attached in Annex 1.

Disability and dependence increase dramatically in old age. One simple measure of this is the proportion of those who are housebound or bed-ridden - the figure rising from less than 5% of those aged under 75 to nearly 20% of those aged 85 and over.

The family is, of course, the primary support of its less able and elderly members. Those of us who work for the care of the elderly tend to have a biased impression of the degree of family support, because we often see those for whom support is inadequate - either through rejection by their families or because support has been removed by emigration of the children or death of the spouse.

If a family cannot cope or if there is no family, the health and social services step in to maintain an elderly or disabled person in some degree of dignity and comfort. The provision of such services has become a growth area in the past two decades.

In some areas the lack of support is striking, in others it is the multiplicity of support agencies which is striking. To the person in need, regardless of age, a multiplication of assistants is confusing and can be alarming. The coordination of these agencies is often ineffective and expensive. A common tool, providing relevant information, is missing.

2. Medicosocial screening and multidimensional functional assessment

General remarks

A large part of improvement in elderly persons associated with qualified intervention is the result of the interest, support and stimulation provided by different categories of personnel when they work from a detailed assessment.

A detailed assessment is a time-consuming procedure and cannot be done - with regard to resource limitations - routinely in all elderly persons in need of medical and/or social attention

Medicosocial screening

As mentioned already, a detailed assessment is a time-consuming procedure and cannot be done routinely. Therefore, an "introductory" step, i.e. screening for risk situations or risk factors indicating dysbalance within the system man-environment, is useful.

A WHO Expert Committee (Planning and organization of geriatric services, WHO TRS 548, 1974) identified the following risk groups among the elderly:

1. 80+ or 90+ (very old)

2. One Person Household
   Comment: very common situation in old age. High risk only in disabled, isolated, bereaved, very old.

3. Aged Women (single)
   Comment: very common situation in old age. High risk mainly in disabled, isolated, bereaved, very old.

4. Institutionalized

5. Isolated

6. Childless
   Comment: not considered to be a particular risk in industrialized countries.

7. Disabled

8. Old Couples

9. Low Economic Status

10. Recently Bereaved, Rehoused (point 10 was suggested by Professor J. Williamson, Edinburgh, 1979)

This information might be easily collected, for example using questionnaires, one-side punch cards (see example given on page 3), etc.

using V-Code*(H. Hermanova, 1979)
ICD/IX revision WHO, Geneva, 1978

Alphab. coding
Resid. Codes
Year(s)

Name:
Address:
Admitted on:
Ward:

Cardio-vasc. 1
Locomotor 2
Neurol. 3
Psych. 4 DG
Casus Soc. 5
GIT 6
Cancer 7
Urol. 8
Respir. 9
Metab. 10
Other 11

> 3DG
VBI
Pain
SOB

V-Code

Born: Age:
Family: Date of Exam:
Transfer/Disch:
Closest relative:
Address:
Tel. No:

Recommendations:

Home-help ☐
Ger. nurse ☐
Res. home ☐
Chron. hosp. ☐
Day centre ☐
Soc. worker ☐
Others ☐

Dependency (degree)
1 2 3 4

Is:
Incontinent
Vison/hearing
Mental
Immobile
Cannot:
communicate
out of bed
eat
dress
personal hygiene
steps

75+
Alone
55-74 alone
Screen +
hospital
Low income
Spouse sick
Housing 3/cat
>1 floor
no lift
housebound

* Future Z-code of ICD-10

Health

Assessment of state of health from the functional point of view finds its place regularly in the functional assessments of the last decades, particularly in the area of mental, locomotor, sensory/communication functioning, with additional information on balance, control of sphincters, shortness of breath, pain, etc.

ADL

Performance in activities of daily living and their testing is the most widespread method in any functional assessment. The variations among different ADL schemes are enormous. Real develoments in the ADL offering all-round practicality and utility, based on proper-scoring, validating and "norming", are missing.

Social and physical environment

The social environment is characterized by the relations with and among people. The physical environment is fixed in time and space. Both these environments are closely connected. The obvious evidence of the interaction between social and physical environments has been based more on observations than evidenced by research.

3. Need for reporting and recording findings

The numerous multidimensional functional assessment tools based on many ADL schemes provide a fragmented picture, offering "bits and pieces" instead of a comprehensive data base. Therefore, data on incidence/prevalence of consequences of diseases are not comparable; the outcome of health/social intervention is not measurable; and simple basic statistics enabling better planning for disability prevention at primary, secondary and tertiary level of control are not possible. This was perceived very clearly at the beginning of the International Year of the Disabled Persons (1981).

The International Classification of Diseases is an important tool in classifying diseases, injuries and causes of death. The introduction of the V-Code in the ninth revision (particularly items V60-V65, coding conditions other than health/medical, leading to contact of persons with health/social facilities) is an important contributing tool in providing supplementary relevant information on social and economic circumstances of the elderly. The V-Code has been used by individual investigators in limited areas only (photocopies of relevant pages of the V-code are attached in Annex 2).

Wood's concept of developing a pathology into handicap (through impairment and disability), based on analysis of multidimensional assessment tools available by the late 1970's, epidemiological studies, and health statistics, as described in the International Classification of Impairments, Disabilities and Handicaps, Geneva, 1980, offers an option for classification and recording. However, before adopting or adapting the ICIDH, serious attempts have to be made to simplify it and to convert it into a tool which can be generally accepted and used as an assessment for the elderly. A network of institutions (in the Netherlands, in France, in Canada) are currently studying the ICIDH for this purpose.

handicaps, the structure of which was based on ICIDH, in Spanish translation (Ref.). The report on this survey includes a chapter on rehabilitation. It specifically discusses the age group 65 and over, and the differences observed according to various localities, as an indirect indicator of equity in health.

The Classification of Impairments, Disabilities and Handicaps, has also recently successfully been implemented in the United Kingdom in the survey of disability (OPCS surveys of disability in Great Britain, Report 1, The prevalence of disability among adults).

This latter survey distinguished 13 types of disability based on the International Classification of Impairments, Disabilities and Handicaps. In addition, there is some information about complaints which gave rise to the disabilities. These last were, as far as possible, assigned to categories based on the International Classification of Diseases (i.e. an example of using the "family" of classifications).

A system of measuring severity was used to classify people with different numbers and types of disability. Severity in each of the 13 different categories was first established, then the 3 highest scores combined to give an overall score from which people were allocated; category 1 being least severe, category 10 being most severe. The judgements were made in terms of the likely effect of a disability on someone's daily life and therefore, partially at any rate, in relation to handicap. It could not be a full handicap measure however, for the circumstances of an individual were not known, for example, their age or sex. The severity measures are therefore not related to handicap as defined in the ICIDH.

Some questions were asked about dependence on others for help with the self care activity, that who provided care, but these do not belong to the assessment of disability section. This was an important omission from the study.

Elderly people

Almost 70% of disabled adults living at home were over 60 and half of them were aged 70 and over. In communal establishment the proportion of elderly disabled people was very high indeed. The most severely disabled adults, those in categories 9 and 10 largely consisted of very elderly people, particularly those of 80 years of age, thus 41% of people in categories 9 and 10 were over 80.

The survey found that there were particularly high rates of disability among elderly women compared with men in the over 75 age group. It is not clear however whether the survey methods allowed for the fact that women over 75 are usually considered biologically older than men aged over 75.

Conclusions

The health, social, economic and environmental conditions of the elderly are closely interwoven; all this information has to be taken into account in assessing an elderly individual, in planning for the elderly in "small areas" (districts) or in planning for the elderly on a national scale.

The International Classification of Diseases cannot provide the necessary information. The V-code (transformed into the "Z" code in the Xth revision of the ICD) is an essential tool in coding information on situations on "persons encountering health services in other circumstances". The International Classification of Impairments, Disabilities and Handicaps is a very useful tool in the assessment of disability and measurement of prevalence of disability by severity and type of disability.

into routine reporting systems on the elderly by respective national statistical authorities.

In order to highlight the need for information on the elderly, obtained through a "family of classifications", the most frequent situations in lives of the elderly, with identification of classifications to be used, are shown below:

Old Person	Philosophy (Principles)	Methods of Work	Problems
"Healthy" - Independent - home	Maintain Independence	Health promotion and maintenance Social + Econ. - counselling - integration into community - voluntary assistance	Separation of - medical - social issues Lack of professional knowledge Economic constraints
		Classifications to be implemented	
		Z-code	Z-code
Acutely ill - home	Comprehensive Treatment	Health PHC + Spec. + nursing Social support	Medical: Clinical knowledge missing Social: Family unable or unwilling to care
		Classifications to be implemented	
ICD		ICD Z code	ICIDH Z-code
Chronic - in the community	Consider: Home + institutional support Support of Self care	Health "Chronic Medicine" Social support Family Services Environment Identify high risks (interior and exterior of household)	Assessment schemes only partly known Self help Self care Quality of life underestimated
		Classifications to be implemented	
ICD & ICIDH	ICIDH Z-code	ICIDH/Z-code	Z-code

Old Person	Philosophy (Principles)	Methods of Work	Problems
Acutely ill - hospital	Recovery and discharge home Different approaches in Member States (integration versus segregation) Independent life	Medical Social support involve relatives	After-care not sufficient Danger of segregation of geriatrics Development of chronic condition
	Classifications to be implemented		
ICD	ICIDH & Z-code		ICD & ICIDH Z-code
Chronic in long-term care, including maintenance of ADL	Stimulate activity/ social inter-action	Counselling Rehabilitation Volunteer involvement Keep social contacts	Training in team-work missing Custodial work Assessment schemes only partly known Quality of life underestimated
"Frail" in Institutions	Independent life	Physical/mental activation	"Totality" of Inst. (Inst. Neurosis) Economic (high costs)
	Classifications to be implemented		
ICD ICIDH	ICIDH	ICIDH Z-code	ICIDH

REFERENCES

Clasificación International de Deficiencias, Discapacidades y Minusvalías - Manual de clasificacion de las consecuencias de la enfermedad. Instituto Nacional de Servicios Sociales, Madrid, 1983.

Encuesta sobre Discapacidades, Deficiencias y Minusvalías - Un primer comentario de los Resultados. Instituto Nacional de Estadistica, Madrid, 1987.

International Classification of Diseases, WHO, Geneva, 1978

International Classification of Impairments, Disabilities and Handicaps, WHO, Geneva, 1980

HERMANOVA, H. Multidimensional assessment technology in care of the elderly in international perspective. Aging - the universal human experience. Springer, New York, 1987 (pp. 391-399)

Disability Concepts: A Position Paper prepared in connection with the United Nations Decade of Disabled Persons (UNDDP) 1983-1992, WHO/EURO, 1987

HERMANOVA, H. A contribution to the complex judgement of the functional potential of the old individual. Rehabilitácia, Suppl.33, 7-24 (1986)

The prevalence of disability among adults. OPCS of disability in Great Britain, HMSO, 1988

TABLE 30. ESTIMATED AND PROJECTED POPULATION AGED 60 AND OVER, BY SEX AND AGE GROUP, EUROPE, NORTHERN AMERICA, AND THE USSR, 1960, 1980, 2000, 2020, 2025 (IN THOUSANDS).

REGION OR COUNTRY	1960		1980		2000		2020		2025	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
EUROPE										
60-69	15,333	20,160	17,724	22,628	23,959	27,308	29,989	33,326	31,007	34,201
70-79	7,976	11,794	12,447	18,537	14,628	21,855	17,752	24,119	19,351	26,599
80+	2,294	3,791	3,293	7,855	4,678	9,279	6,843	12,749	7,067	13,035
EASTERN EUROPE										
60-69	3,202	4,322	3,519	4,702	5,344	6,242	7,277	8,214	6,763	7,590
70-79	1,508	2,279	2,666	3,918	3,138	4,803	3,763	5,241	4,574	6,290
80+	384	626	605	1,251	746	1,728	1,334	2,733	1,344	2,761
Bulgaria										
60-69	243	277	358	386	483	540	534	589	520	561
70-79	133	169	242	294	332	429	335	443	364	481
80+	30	45	56	85	81	141	126	236	125	339
Czechoslovakia										
60-69	493	640	539	658	618	754	944	1,089	885	1,011
70-79	215	329	408	578	417	662	552	807	629	911
80+	62	96	84	185	101	205	143	309	163	346
German Democratic Republic (1)										
60-69	889	1,201	505	892	922	1,035	1,052	1,156	1,105	1,216
70-79	456	686	526	895	481	734	525	731	602	806
80+	128	196	149	325	114	346	216	458	224	471
Hungary										
60-69	375	475	413	521	478	608	647	755	548	635
70-79	180	255	291	413	313	501	360	545	419	618
80+	45	65	70	137	78	183	111	270	121	286
Poland										
60-69	742	1,032	1,028	1,370	1,658	1,964	2,682	3,059	2,436	2,767
70-79	285	493	716	1,090	975	1,548	1,242	1,747	1,652	2,307
80+	75	141	144	334	231	557	421	909	410	884
Romania										
60-69	540	697	676	875	1,184	1,339	1,418	1,566	1,269	1,401
70-79	239	347	490	639	700	937	749	969	907	1,165
80+	46	83	106	183	160	296	317	551	301	536
NORTHERN EUROPE (2)										
60-69	3,859	3,892	3,774	4,414	3,602	4,069	4,668	5,211	5,073	5,627
70-79	1,639	2,452	2,288	3,442	2,407	3,571	3,012	4,251	3,106	4,412
80+	504	886	638	1,484	1,047	1,769	1,134	1,943	1,220	2,086
Denmark										
60-69	190	214	238	267	232	258	306	336	317	349
70-79	106	125	149	202	155	215	223	292	223	292
80+	34	48	50	85	67	127	72	136	84	153
Finland										
60-69	126	176	170	247	213	255	316	365	308	357
70-79	55	96	102	183	130	217	207	295	222	323
80+	13	28	24	61	38	102	55	125	63	137
Iceland										
60-69	6	6	7	8	9	10	17	18	19	20
70-79	3	3	5	5	7	8	10	12	12	14
80+	1	1	2	3	2	4	3	5	3	6
Ireland										
60-69	115	120	135	142	126	138	197	214	223	244
70-79	75	83	82	98	80	109	107	144	122	162
80+	24	31	25	48	30	54	31	63	35	69
Norway										
60-69	154	172	201	224	167	183	263	284	270	290
70-79	81	103	128	164	134	179	173	217	186	238
80+	30	39	42	70	39	108	56	102	63	111
Sweden										
60-69	343	378	441	476	380	414	473	497	491	516
70-79	194	233	284	365	284	379	374	477	358	463
80+	63	80	91	153	125	232	122	228	142	254
United Kingdom of Great Britain and Northern Ireland										
60-69	2,118	2,816	2,571	3,037	2,463	2,798	3,080	3,478	3,428	3,830
70-79	1,120	1,802	1,539	2,415	1,618	2,453	1,907	2,799	1,973	2,907
80+	338	665	402	1,067	721	1,138	790	1,278	824	1,348
SOUTHERN EUROPE (3)										
60-69	3,711	4,781	5,014	6,112	6,988	8,181	8,444	9,422	9,101	10,020
70-79	1,990	2,775	3,345	4,560	4,307	6,218	4,877	6,754	5,471	7,429
80+	555	863	874	1,613	1,498	2,518	2,191	3,747	2,178	3,758
Albania										
60-69	30	33	55	59	106	114	202	215	245	258
70-79	22	24	27	31	51	61	95	113	113	138
80+	6	7	8	11	15	21	31	47	35	54

TABLE 30. CONTINUED.

REGION OR COUNTRY*	1960		1980		2000		2020		2025	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
Greece										
60-69	251	307	402	470	515	616	587	612	614	650
70-79	142	194	278	342	342	450	339	452	389	482
80+	48	63	82	129	137	206	182	296	171	282
Italy										
60-69	1,717	2,197	2,285	2,698	2,883	3,414	3,184	3,571	3,469	3,857
70-79	966	1,314	1,569	2,124	1,849	2,783	2,032	2,864	2,143	2,976
80+	275	388	417	791	790	1,171	1,068	1,648	1,059	1,635
Malta										
60-69	10	12	11	14	14	20	27	33	27	30
70-79	5	6	9	10	8	13	13	23	17	26
80+	1	1	2	3	2	4	2	7	3	8
Portugal										
60-69	255	340	344	434	385	541	607	701	675	754
70-79	133	202	197	309	248	401	287	467	357	529
80+	35	72	40	93	67	140	91	218	92	227
Spain										
60-69	978	1,213	1,334	1,669	1,790	2,095	2,276	2,572	2,550	2,800
70-79	495	699	820	1,151	1,178	1,637	1,304	1,770	1,450	1,975
80+	125	226	231	423	352	692	507	975	511	982
Yugoslavia										
60-69	468	597	579	765	1,202	1,376	1,554	1,711	1,515	1,665
70-79	227	336	443	590	637	947	805	1,059	997	1,298
80+	65	105	93	162	136	274	308	574	301	569
WESTERN EUROPE (4)										
60-69	5,341	7,244	5,417	7,399	8,113	8,816	9,519	10,481	10,870	10,963
70-79	2,839	4,288	4,149	6,625	4,775	7,264	6,099	7,874	6,482	8,468
80+	848	1,416	1,177	2,707	1,347	3,272	2,203	4,306	2,330	4,430
Austria										
60-69	308	433	262	394	344	394	433	488	488	548
70-79	155	250	221	366	215	344	273	382	273	379
80+	44	78	60	141	64	167	93	195	104	212
Belgium										
60-69	414	506	396	460	484	556	632	697	655	724
70-79	222	300	285	413	318	467	356	[illegible]	405	553
80+	65	104	81	165	89	195	123	263	124	261
France										
60-69	1,772	2,425	1,836	2,220	2,576	2,857	3,488	3,876	3,526	3,902
70-79	950	1,614	1,454	2,178	1,776	2,445	2,163	2,725	2,452	3,201
80+	299	615	422	1,026	484	1,036	733	1,388	745	1,379
Germany, Federal Republic of (1)										
60-69	2,239	3,150	2,117	3,313	3,634	3,822	3,548	3,947	3,912	4,296
70-79	1,168	1,704	1,688	2,905	1,813	3,009	2,320	3,059	2,247	3,053
80+	336	488	446	1,048	580	1,396	934	1,850	997	1,926
Luxembourg										
60-69	14	16	15	18	21	22	22	25	23	25
70-79	7	9	10	15	11	15	15	19	15	20
80+	2	3	3	5	3	7	5	10	5	10
Netherlands										
60-69	407	455	530	625	695	734	1,010	1,093	1,059	1,144
70-79	229	260	319	465	435	586	674	827	725	916
80+	72	86	111	186	149	282	209	366	234	400
Switzerland										
60-69	205	257	258	368	337	427	383	349	402	317
70-79	107	150	170	281	205	375	291	373	281	341
80+	30	50	53	135	77	188	105	232	119	239
NORTHERN AMERICA (5)										
60-69	6,875	7,616	9,425	11,259	10,244	12,105	19,482	22,106	20,538	23,012
70-79	3,890	4,627	5,162	7,478	7,185	10,151	10,241	14,106	12,149	16,624
80+	1,135	1,613	1,858	3,758	2,434	4,826	3,009	5,974	3,430	6,688
Canada										
60-69	520	527	815	919	1,077	1,189	2,081	2,224	2,126	2,346
70-79	324	339	431	545	713	971	1,081	1,420	1,269	1,680
80+	95	111	136	231	248	446	359	638	410	716
United States of America										
60-69	6,352	7,086	8,605	10,334	9,161	10,910	17,468	19,869	18,399	20,650
70-79	3,544	4,286	4,729	6,929	6,388	9,174	9,153	12,677	10,871	14,933
80+	1,040	1,501	1,721	3,525	2,184	4,376	2,647	5,332	3,018	5,968
UNION OF SOVIET SOCIALIST REPUBLICS										
60-69	4,275	8,174	6,027	12,029	13,638	16,862	18,477	20,669	19,609	21,877
70-79	2,206	4,844	3,677	8,768	6,685	12,249	7,980	11,166	10,474	14,144
80+	567	1,498	1,038	3,172	1,317	4,397	3,487	7,516	3,159	6,811

SOURCE: Derived from World Population Prospects: Estimates and Projections as Assessed in 1982 (United Nations publication, Sales No. 83.XIII.5).

NOTE: Figures may not add to totals because of rounding.

* For explanatory notes regarding regions and countries, see p. 53.

V57.4 *Orthoptic training*

V57.8 *Other*

V57.9 *Unspecified*

V58 Other and unspecified aftercare

V58.0 *Radiotherapy session*

Admission solely for radiotherapy, the main part of the treatment (for malignant disease) already having been completed

V58.1 *Maintenance chemotherapy*

Excludes: prophylactic chemotherapy against disease which has never been present (V03.– to V07.–)

V58.2 *Blood transfusion, without reported diagnosis*

V58.3 *Attention to surgical dressings and sutures*

Change of dressings Removal of sutures

V58.4 *Other aftercare following surgery*

Excludes: attention to artificial openings (V55.–)
orthopaedic aftercare (V54.–)

V58.5 *Orthodontics*

V58.8 *Other*

V58.9 *Unspecified*

V59 Donors

Excludes: examination of potential donor (V70.8)

V59.0 *Blood*

V59.1 *Skin*

V59.2 *Bone*

V59.3 *Bone marrow*

V59.4 *Kidney*

V59.5 *Cornea*

V59.8 *Other specified organ or tissue*

V59.9 *Unspecified*

PERSONS ENCOUNTERING HEALTH SERVICES IN OTHER CIRCUMSTANCES (V60-V68)

V60 Housing, household and economic circumstances

V60.0 *Lack of housing*

Hobos Transients
Social migrants Vagabonds
Tramps

V60.1 *Inadequate housing*

Lack of heating Technical defects in home preventing adequate care
Restriction of space

V60.2 *Inadequate material resources*

Economic problem Poverty NOS

V60.3 *Person living alone*

V60.4 *No other household member able to render care*

Person requiring care (has) (is):
family member too handicapped, ill or otherwise unsuited to render care
partner temporarily away from home
temporarily away from usual place of abode

Excludes: holiday relief care (V60.5)

V60.5 *Holiday relief care*

Provision of health care facilities to a person normally cared for at home, to enable relatives to take a vacation

V60.6 *Person living in residential institution*

Boarding school resident

V60.8 *Other*

V60.9 *Unspecified*

V61 Other family circumstances

Includes: when these circumstances or fear of them, affecting the person directly involved or others, are mentioned as the reason, justified or not, for seeking or receiving medical advice or care

V61.0 *Family disruption*

Divorce Estrangement

WHOICD10/REV.CONF/89.5
Annex 2
page 11

V61.1 *Marital problems*

Marital conflict

Excludes: problems related to:
psychosexual disorders (302.–)
sexual function (V41.7)

V61.2 *Parent-child problems*

Child:
abuse
battering
neglect

Concern about behaviour of child
Parent-child conflict
Problem concerning adopted or foster child

Excludes: effect of maltreatment on the child (995.5)

V61.3 *Problems with aged parents or in-laws*

V61.4 *Health problems within family*

Alcoholism in family
Care of / Presence of } sick or handicapped person in family or household

V61.5 *Multiparity*

V61.6 *Illegitimacy or illegitimate pregnancy*

V61.7 *Other unwanted pregnancy*

V61.8 *Other*

V61.9 *Unspecified*

V62 Other psychosocial circumstances

Includes: when these circumstances or fear of them, affecting the person directly involved or others, are mentioned as the reason, justified or not, for seeking or receiving medical advice or care

Excludes: previous psychological trauma (V15.4)

V62.0 *Unemployment*

Excludes: when main problem is inadequate material resources (V60.2)

V62.1 *Adverse effects of work environment*

V62.2 *Other occupational circumstances or maladjustment*

Career choice problem
Dissatisfaction with employment

V62.3 *Educational circumstances*

Dissatisfaction with school environment
Educational handicap

V62.4 *Social maladjustment*

Cultural deprivation
Political, religious or sex discrimination
Social:
isolation
persecution

V62.5 *Legal circumstances*

Imprisonment
Litigation
Prosecution

V62.6 *Refusal of treatment for reasons of religion or conscience*

V62.8 *Other psychological or physical strain, not elsewhere classified*

V62.9 *Unspecified*

V63 Unavailability of other medical facilities for care

V63.0 *Residence remote from hospital or other health care facility*

V63.1 *Medical services in home not available*

Excludes: no other household member able to render care (V60.4)

V63.2 *Person awaiting admission to adequate facility elsewhere*

V63.8 *Other*

Person on waiting list undergoing social agency investigation

V63.9 *Unspecified*

V64 Persons encountering health services for specific procedures, not carried out

V64.0 *Vaccination not carried out because of contraindication*

V64.1 *Surgical or other procedure not carried out because of contraindication*

V64.2 *Surgical or other procedure not carried out because of patient's decision*

V64.3 *Procedure not carried out for other reasons*

V65 Other persons seeking consultation without complaint or sickness

V65.0 *Healthy person accompanying sick person*

Boarder

V65.1 *Person consulting on behalf of another person*

Advice or treatment for nonattending third party

Excludes: anxiety (normal) about sick person in family (V61.4)

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE
WHO/ICD10/REV.CONF/89.6

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

INTERNATIONAL NOMENCLATURE OF DISEASES

by

Z. Bankowski*

Introduction

It has long been recognized that the increasing confusion in disease nomenclature constitutes a severe barrier to communication and to the storage and retrieval of information. Few diseases have a single recognized name: most have several different - often widely different - names, and some have thirty or more. Many of these names are strict synonyms; others, however, are not, but may represent only a single clinical manifestation of a given disease rather than the disease itself. The confusion is aggravated by the fact that the same name, or very similar names, may be applied to two or more different conditions, or be used in different ways by different authors. Moreover, very similar names may be used in different senses in different languages. At a time when health is increasingly a matter of concerted international effort, such confusion gives rise to intolerable difficulty in communication and the waste of precious resources.

In 1970 the Council for International Organizations of Medical Sciences (CIOMS) began the preparation of an International nomenclature of diseases (IND), with the assistance of its member organizations, and five volumes of provisional nomenclature were issued during 1972-1974. It was soon realized, however, that such a nomenclature, if it was to be truly international, necessitated much wider consultation than was possible solely through the CIOMS member bodies. In 1975 the IND became a joint project of CIOMS and the World Health Organization, guided by a Technical Steering Committee representing both organizations.

The project was supported initially by a contract with the United States Public Health Services and since 1982 by the Kuwait Foundation for the Advancement of Sciences and the Kuwait Ministry of Public Health

* Executive Secretary, Council for International Organizations of Medical Sciences (CIOMS), Geneva, Switzerland

The principal objective of the IND is to provide, for every morbid entity, a single recommended name. The main criteria for selection of this name are that it should be specific (i.e., that it should apply to one and only one disease), unambiguous, as self-descriptive as possible, as simple as possible, and (wherever feasible) based on cause. However, many widely used names do not fully meet these criteria, and to propose new names might well increase, rather than eliminate, confusion. Consequently, names that are in virtually universal usage are retained, even if they do not fully meet the criteria listed above, provided they are not seriously incorrect, misleading, or contrary to the recommendations of international specialist organizations. Eponymous terms are avoided to the maximum possible extent, since they are not self-descriptive; however, many of these also are in such widespread use, such as Hodgkin's disease, Parkinson's disease and Addison's disease, that they must be retained.

Each disease or syndrome for which a name is recommended is defined as unambiguously, and yet as briefly, as possible. To the definition is appended a list of synonyms - that is, terms other than the recommended term that have been applied to the morbid entity in question. These lists are invaluable for information retrieval and are made as complete as possible; they are supplemented, where necessary, by notes explaining why certain synonyms are rejected or why an alleged synonym is not in fact a synonym at all. (Fig. 1).

A final objective of the IND is that it should serve as an complement to the International Classification of Diseases (ICD). This calls for a brief explanation of the difference, and the relationship, between the two. The ICD is designed for the reporting of mortality and morbidity statistics, and for this purpose it groups diseases into categories; its primary concern is not the name that should be given to a disease, but the category under which an occurrence of the disease should be reported. The IND, on the other hand, is concerned solely with the names that should be given to disease; it is a list of recommended names for diseases, with no attempt to specify the manner in which those diseases should be classified for the purposes of statistical reporting. Consequently, it is not concerned with categories, although of course it names and describes related diseases in chapters that have general titles such as "congenital abnormalities of the oesophagus" or "ischaemic heart diseases". The difference between the ICD and the IND can be seen most clearly in the inclusion and exclusion notes found in many ICD rubrics and in rubrics such as "other aneurysm" or "of unspecified site". Such entries have no place in the IND, in which everything must be specified and named. Early volumes of the IND included the ICD code for each disease. It was found, however, that this gave rise to some confusion, some readers assuming that the IND was intended to replace the ICD. ICD codes are therefore no longer included.

INTERNATIONAL NOMENCLATURE OF DISEASES

OBJECTIVE

To establish, through consensus of large international groups of experts, a single recommended name for every disease of man.

CONTENTS	PREPARATION
Recommended names	First draft
Definitions	Review of first draft
Synonyms	Second draft
Explanatory notes	Review of second draft
	Final text and publication

WHO 881007

In the preparation of the 10th Revision of the ICD use was made of the experience gained in the preparation of the IND, particularly in regards to the groups of diseases for which the IND has been published or is about to be published.

Method of Work

For the purpose of the International nomenclature of diseases, the following working criteria are applied for the identification of disease entities which qualify for inclusion in the IND. Disease entities are well-defined pathological entities characterized by abnormal histological, chemical, immunological, genetic or other changes, of known or unknown cause and pathogenesis. Such pathological entities may or may not give rise to abnormal functions, signs or symptoms. The IND does not catalogue manifestations of disease entities, that is, signs and symptoms, though these may be mentioned in the definitions or descriptions of the diseases.

For each volume, a first draft is prepared by consultants working in accordance with detailed guidelines approved by the Steering Committee and taking into account existing international and national recommendations and in consultation with CIOMS and WHO experts. In preparing this draft, all existing international terminologies are considered; wherever possible, original articles in journals are consulted; reference is also made to standard textbooks, dictionaries, classifications, and other reference works. this draft is distributed to a large number of experts throughout the world., including those nominated by the appropriate international nongovernmental organizations. These experts are invited to comment on all aspects of the first draft, especially the recommended names. Subsequently the draft is revised in the light of their comments, and the revised text is again distributed for review. On rare occasions it may be necessary to prepare a third draft. If problems involving differences of interpretation should arise, meetings of experts may be convened in order to resolve the difficulties. The text is published only when a consensus has been reached. On the basis of the final comments received from the experts, the text is prepared for the printer, together with an alphabetical index of all recommended names and synonyms. The International nomenclature of diseases is distributed through the WHO Distribution and Sales Service.

Recommended nomenclature in related areas. Any international nomenclature must, if it is to be credible, follow all relevant nomenclature that has been recommended by other international organizations, especially the international scientific unions. For example, the names of chemical substances should follow the rules of the International Union of Pure and Applied Chemistry, the names of enzymes should be those recommended by the International Union of Biochemistry, and the names of pesticides should be those recommended by the International Organization for Standardization. Similarly, the names of bacteria and viruses should be those validly published by the International Committee on Systematic Bacteriology and the International Committee on Taxonomy of Viruses, respectively. In many cases this can be done simply, but in others a great deal of difficult and time-consuming work is involved. For instance, in the case of the volume on parasitic diseases, it was necessary to enlist the help of the secretariat of the International Commission on Zoological Nomenclature (ICZN), who verified the validity of all the names of parasites used (some 2000 names).

PARASITIC DISEASES

Falciparum malaria

A severe (and, in nonimmune persons, rapidly fulminating) form of malaria caused by Plasmodium (Laverania) falciparum. Clinical manifestations (usually occurring 5-15 days after inoculation) are highly variable and may include high fever, chills, headache, myalgia, rapid pulse rate, splenomegaly, and sometimes delirium; there is often a high level of parasitaemia and capillary obstruction may occur. After the initial illness a periodic pattern of paroxysms may be established. The paroxysms, with fever and chills, usually last for 12-24 hours and tend to be repeated every 48 hours. Coma, excessive destruction of erythrocytes, convulsions, and heart failure may lead to death. The disease may produce very serious complications. Synonyms: acute pernicious fever; aestivo-autumnal fever; aestivo-autumnal malaria; algid malaria; Chagres fever; continued malarial fever; estivo-autumnal fever; estivo-autumnal malaria; estivo-autumnal malarial fever; falciparum fever; malignant tertian fever; malignant tertian malaria; Panama fever (in part); pernicious intermittent fever; pernicious malaria; Plasmodium falciparum malaria; quotidian malaria; Roman fever (in part); subtertian fever; subtertian malaria fever; subtertian malignant tertian malaria; tertian malaria (in part); tertian malignant malaria; tropical malaria.

Linguistic note: The term "algid malaria" refers to falciparum malaria in which gastrointestinal manifestations predominate. "Chagres fever" (a term that has been used) should not be confused with Chagres virus disease.

CARDIAC AND VASCULAR DISEASES

Acute myocardial infarction

Necrosis of a portion of the heart muscle as a result of inadequate blood supply.

Synonyms: acute cardiac infarction; coronary heart attack; coronary occlusion; coronary thrombosis.

Notes. 1. The term may be qualified by a topographical descriptor, e.g., inferior myocardial infarction, inferolateral myocardial infarction.

2. The term old myocardial infarction (or healed myocardial infarction) is applied to the state of healed myocardial infarction, usually with persistent abnormal Q waves present.

3. The so-called "shoulder-hand syndrome", which in the past was regarded as a late complication of myocardial infarction, may have been due to prolonged bed rest and has no specific links with cardiovascular disease; it is not covered in this volume of the International nomenclature of diseases.

Status

Preparation of the IND has proved to be more time-consuming than had originally been thought, mainly owing to the difficulty of handling simultaneously, with a very small staff, up to twelve different sections of the IND at different stages of preparation. However, this has been offset to some extent by making the maximum use of computer techniques, e.g., totally automatic index preparation.

The present status of the IND is outlined below:

Published

Lower Respiratory Tract, 1979
Infectious Diseases:
  Mycoses, 1982
  Viral, 1983
  Bacterial, 1985
  Parasitic, 1987
Cardiac and Vascular Diseases, 1989

In Preparation

Digestive System (ready for printing)
Urinary and Male Genital System
Female Genital System
Metabolic and Endocrine Diseases
Blood and Blood-forming Organs
Immunological System
Musculoskeletal System
Nervous System

To be prepared

Psychiatric Diseases
Skin
Ear, Nose and Throat
Eye and Adnexa

The Arabic version of nomenclature of diseases of the Lower Respiratory Tract has been completed and published. The WHO Regional Office for the Eastern Mediterranean, in collaboration with the Arab Centre for Medical Literature, has agreed to publish the nomenclature of Bacterial Diseases, Mycoses, Parasitic Diseases and Viral Diseases in 1989.

It is the hope of both CIOMS and WHO that the International nomenclature of diseases will serve to improve communication in health sciences and to facilitate the storage and retrieval of information.

- - -

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.7
ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

FROM LAY REPORTING TO COMMUNITY-BASED HEALTH INFORMATION

1. Review of activities in lay reporting of health information

Since 1954, there has been an increasing concern over poor access to the services of qualified health personnel by a large proportion of the population in many developing countries and hence over the incompleteness and poor coverage of health information, particularly on mortality and morbidity, that can provide a reliable epidemiological picture. As the International Classification of Diseases (ICD) was revised periodically to improve its usefulness, based on advances in the medical and public health area, its application in developing countries brought to the forefront the need to have simple methods and tools that could be used by peripheral health workers with generally limited medical knowledge.

The WHO Expert Committee on Health Statistics in 1954 and the International Conference for the Seventh Revision of the ICD in 1955 both stressed the desirability of devising methods of recording vital and health information suited to conditions in developing countries, and particularly to those areas where there was a dearth, or even a complete absence, of physicians for diagnostic purposes.

In response to this concern, a proposal entitled "A Method for the Recording of Crude Causes of Death by Laymen in Underdeveloped Areas" was presented at the African Conference on Vital and Health Statistics held in Brazzaville from 19-24 November 1956 and discussed at the Expert Committee on Health Statistics held in Geneva from 10-15 December 1956. Annex 1 describes the proposal which showed remarkable insight into the problems and possible methods of obtaining vital and health information through non-medical personnel.[1]

Also in 1956, a study into lay reporting was undertaken by the WHO-assisted Nagpur Demonstration and Training Unit, Bombay State, India. The results of that study were presented to the WHO Regional Seminar on Certification and Classification of Mortality and Morbidity held in New Delhi, India in September 1958.

Since that time a number of lay reporting schemes have been field-trialed or established and in the early 1970s WHO held two meetings on lay reporting namely:

- Consultation on Lay Reporting of Perinatal Mortality and Morbidity, Geneva, 27 September - 1 October 1971, and

- Consultation on the Methodology and Application of Lay Reporting of Perinatal and Maternal Morbidity and Mortality, Geneva, 26-30 March 1973.

The International Conference for the Ninth Revision of the ICD convened by WHO in Geneva from 30 September to 6 October 1975 discussed the problem of securing badly needed morbidity and mortality statistics in countries still suffering from a lack of sufficiently qualified personnel. A small working party, consisting of delegates from Member States with experience of the problem, was convened and in the light of its report the Conference recommended that WHO should:

(1) become increasingly involved in attempts made by the various developing countries for the collection of morbidity and mortality statistics through lay or paramedical personnel;

(2) organize meetings at regional level for facilitating the exchange of experiences between countries currently facing this problem so as to design suitable classification lists with due consideration to national differences in terminology;

(3) assist countries in their endeavour to establish or expand the system of collection of morbidity and mortality data through lay or paramedical personnel.

In accordance with these recommendations, a Working Group was convened by the WHO Regional Office for South-East Asia in New Delhi from 22-27 November 1976. The Working Group drew up a detailed list of symptom associations. From this detailed list, two short lists were derived, one for causes of death and one for reasons for contact with health services. Field trials of this system were carried out in countries of the Region and the results were used to revise the list of symptom associations and the reporting forms. This revised version was published by WHO in 1978 in the booklet Lay Reporting of Health Information.[2,3]

In 1981, questions concerning lay reporting were included in a questionnaire to Member States relating to the Ninth Revision of the International Classification of Diseases. More than half of the countries completing the questionnaire stated that lay reporting was relevant and this applied to the majority of Member States in the WHO African, American and South-East Asian Regions. While the majority of countries having a favourable attitude towards lay reporting considered the booklet suitable, it was also stressed in the replies that the booklet required local adaptation in order to meet the specific and peculiar needs of countries. European countries, considered the system as developed by WHO of value particularly for household surveys.

Convinced of the usefulness of lay reporting in morbidity and mortality statistics and its potential in obtaining other health and health-related information in countries where medical manpower is inadequate, a number of WHO-sponsored regional and national workshops have been organized in many regions to share experiences in lay reporting initiatives and to plan activities for its improvement and expansion. Apart from the meeting in Senegal in March 1982 that discussed the reporting of health information by paramedical personnel and health auxiliaries and adaptation of the list provided by WHO, meetings were also held in Nairobi in September 1981 and in Dakar in March 1982 to consider the inclusion of environmental features related to health within a lay reporting system.[4] The subject was also discussed at the International Conference on Health Statistics for the Year 2000 held in Bellagio, from 27 September to 1 October 1982.[5] The major problem raised related to the integration of "lay reporting" information with others conventionally used and routinely generated for health management and initiatives were taken to study this, not in isolation but as one of the efficient ways to make available relevant information for health management.

The Consultation on Primary Care Classifications held in Geneva in November 1985 recognized the needs for information for a PHC-based health system and hence the need for an approach that could unify information support, health service management and community services, through information based on lay reporting in the expanded sense of community-based information. The Second Expert Committee on the International Classification of Diseases - 10th Revision in 1987 also discussed this aspect and agreed that, though it would not be possible to develop a uniform classification for community-based health information, WHO should continue to give guidance at regional and national levels and issue guidelines to facilitate the development of local schemes.

It is pertinent to point out, at this stage, that, as many countries in Asia and Africa have taken "lay reporting" initiatives to bridge the gap in the availability of information, particularly in the morbidity and mortality areas, a number of countries in the Americas designed and tested innovative procedures and tools not only for generating data using community resources, but also for validating and analysing existing data generated through "conventional" routine reporting procedures. An attempt is being made in Mexico to translate symptoms and signs, that are meaningful and of primary use to the peripheral health worker/volunteer, into diagnoses for use at higher levels. (Annex 2) Some developed countries have also introduced coding schemes to assist doctors and staff to understand the patients' problems. They cover the whole range of clinical medicine to the level of detail required by the practising doctors and includes signs and symptoms, laboratory tests, diagnoses, therapeutic procedures, occupational history, family history, social history etc. A number of health care programmes have also developed simple procedures for obtaining relevant health information, taking into account both the programme priority needs and the specific developing countries situation.[6]

2. Community-based Health Information System (CHIS)

The global strategy for Health for All by the Year 2000 (HFA/2000) launched in 1978 has thrown open a number of challenges for the development of information systems in Member States.[7] With the countries reorienting and strengthening their health services to a health system based on primary health care, they recognize an urgent need to improve their information support for developing and managing such a system. The framework for such an improvement is based on the conceptual aspects of the health for all goals and primary health care. The perspective of enabling, by the year 2000, all people in all countries to have a level of health that will permit them to lead a socially and economically productive life requires relevant health and health services information for all the population, that are comparable over time and among population groups and geographical areas including between countries where necessary. With primary health care becoming the main focus for the countries' health systems to attain efficiently the HFA/2000 goals, decentralization with maximum community involvement in identifying priority problems and participating in solving them, has become the basis for the health systems development and management. This has made it imperative that, in addition to information on health status, one possesses information on health resources and technology and on health activities and services including health care coverage, equity, quality, effectiveness and impact. It is also necessary that such information is meaningful to health personnel with different levels of education and training in medicine. The information should also be comparable over time and among population groups and areas.

Health systems based on primary health care require that information for the whole country is available on:

(i) complete morbidity and mortality situations and their patterns that can be compared over time and among geographical areas for a given point of time,

(ii) socio-economic and environmental determinants as well as the operational and other risk factors associated with given morbidity and mortality patterns so that priority population groups and areas can be identified and health care activities can be targeted, and on

(iii) resources, financial and others, that are available so that they can be meaningfully redirected to improving the quality of life of the people.

This can be achieved by broadening the scope of lay reporting to a Community-based Health Information System (CHIS) that includes: health problems and needs, related risk factors and resources (including relevant information from related sectors) and is focussed on individuals grouped to families and based on communities.

At the community level, apart from morbidity and mortality data that can be generated through the lay reporting method, risk factors in terms of environmental hazards, behaviour and others of medical significance requiring special care can be studied for all individuals within a family and a risk score assigned to the family for priority attention for relevant care. The list of individuals when properly updated can also provide information on eligibles for various health care activities and services such as antenatal care, immunization, child care, nutrition etc. Given the socio-economic and environmental information, it should be possible to choose appropriate types and modes of interventions, be they promotional, preventive or curative, to ensure their effectiveness and contribution to improving the quality of life that underlies the health for all strategies. Continuous care registers for various programme/service interventions can be built around this "family sheet" to facilitate the initiation and maintenance of appropriate care to individuals through "follow-ups" (Annex 3). The service registers, records and reports will thus have a single focus, viz. family of individuals to satisfy the managerial needs for information at different levels, with information emanating from different sources, it should be possible to develop a comprehensive measure of access to PHC. A sample of the family sheet is given as Annex 4.

At the national level, the community information, and if necessary even family information, can be aggregated to derive among others, a complete picture of the morbidity and mortality situation including the pattern of conditions for the whole country. This can be supplemented with a scheme such as sentinel reporting for epidemiological surveillance.

2.1 CHIS Procedure

Since most of the contents of the community-based information system described above has to be generated at the community level by the peripheral workers as well as community volunteers and other health workers, it is imperative that the terms used are simple and meaningful and should be, as far as possible, in local dialects. In respect of the diagnosis-related health information, use of "lay reporting" methods suitably adapted to a community situation are appropriate. They should be able to facilitate comparability over time for the monitoring of the changes both within and between communities. National and international comparisons of data generated in this way are of secondary importance but relevant tools can be developed to transform and translate these "local level" terms to suit "higher level" requirements. To facilitate the use of information not only to know about the problems but also for

planning and managing relevant interventions to solve them, it is necessary that the simplicity and comparability go beyond the health problems of morbidity, mortality and disability and include at least health resources, services/activities including their effectiveness etc. Standardization procedures are needed not only for monitoring changes in the health situation but also in manpower, financial resources and their utilization, and in activities and services as well as in the effectiveness and impact of the interventions.

A number of countries have been developing and testing some or all aspects of the Community-based Health Information System (CHIS) and from their experiences so far they seem to be feasible and effective in terms of their utilization.[8,9]

3. Conclusions

To obtain a factual picture of the health situation for the whole country and particularly to overcome difficulties in the collection of morbidity and mortality data, several initiatives including the use of lay reporting procedures have been undertaken. In implementing their health for all strategies, countries noted persistent deficiencies in information support mechanisms and procedures in providing relevant information. They also recognized the need not only for a complete picture of the health situation but also for related risk and other factors inhibiting and influencing the situation, and of resources. Based on the experience gained so far, the scope of the lay reporting method was broadened to a "community-based Health Information System" that includes diagnosis-related health information through lay reporting mainly by nonmedically-trained health personnel. This expanded scheme is being tested in a number of countries. It seems that CHIS can provide information that is :

(i) complete compared with conventional institution-based information - i.e. covering the total population and not restricted to demand;

(ii) comprehensive as it facilitates the provision of continuity in health care; coverage of total population receiving all elements of PHC can be derived;

(iii) efficient since common data elements of various programmes are generated only once and can be continuously updated,

(iv) effective by being the basis for providing a consistent set of eligible persons for different programmes. Programme delivery records can be tailored to the requirements of the users but built on this common dataset; relevant information and indicators can then be derived for management;

(v) meaningful since data are generated in terms understandable to those who generate and use them.

CHIS provides basic demographic and health data and at the same time can be a useful sampling frame for eventual later sample surveys.[10] It is envisaged that a number of activities in support of the adaptation, application and further development of CHIS will be undertaken in Member States. It is to be acknowledged however that even this CHIS need not necessarily be a standard tool for generating health information in all countries. Given the different socio-cultural situations of the countries and diagnostic knowledge level of the peripheral health personnel several schemes to facilitate the collection of health information may have to be considered. However, whatever the scheme, one should ensure that the data thus generated are comparable over time and among population groups and geographical areas. In evolving tools for standardization, it is desirable to ensure that the classification schemes, organized to meet the needs of different users in the most effective manner, are developed around a "family of classifications" to enable comparisons over areas/countries by higher level users, using a core classification such as the International Classification of Diseases. This also applies to the schemes associated with health resources, health activities and with health services.

1. Biraud, Y. (1956): A method for the recording of crude causes of death by laymen in underdeveloped areas, Expert Committee on Health Statistics, 10-15 December 1956, Geneva, World Health Organization. (unpublished document)

2. WHO (1978): Lay reporting of health information, Geneva, World Health Organization

3. Kupka, K. (1981): Lay reporting of health information, World Health Forum, 2: 211-217

4. Laurenti, R. (1981): Lay reporting of Health and Morbidity Problems, in International Conference on Health Statistics for the year 2000, Bellagio, Italy, 27 September - 1 October 1980. Geneva, World Health Organization. pp. 99-120

5. WHO (1985): Interregional Meeting on Lay Reporting in Information Support to HFA Strategy Management , Manila, 8-15 October 1985, Final Report. Geneva, World Health Organization

6. Ludovice, Z.O. (1985): Lay reporting of health information in the Philippines, Manila, Ministry of Health.

7. WHO (1981): Global strategy for Health for All by the year 2000, Geneva, World Health Organization, (HFA Series No.3)

8. Suva, Evangeline E. (1986): Gathering Information for Health. World Health Forum, 7: 340-344

9. Mkai, Cletus P.B. (1987): The Community-based Health Information System being established in Tanzania, Bulletin of the International Statistical Institute, Proceedings of the 46th Session, Tokyo, 1987. Voorburg, International Statistical Institute. Book 2, pp 231-246

10. Krickeberg, K. (1987): Measurement and Utilization of Health-related Indicators - Discussion on Mkai's Community-based Health Information System being established in Tanzania, in the Bulletin of the International Statistical Institute, Proceedings of the 46th Session, Op cit. p.261

HEALTH STATISTICS

Brazzaville, 19-24 November 1956

EXPERT COMMITTEE ON HEALTH STATISTICS

Geneva, 10-15 December 1956

WHO/HS/60
12 October 1956

ORIGINAL: ENGLISH AND FRENCH

A METHOD FOR THE RECORDING OF CRUDE CAUSES OF DEATH BY LAYMEN IN UNDERDEVELOPED AREAS

by

Yves Biraud, M.Sc., M.D., D.P.H.
Director of the Division of Epidemiological and Health Statistical Services
World Health Organization

1. Origin of the present paper

The WHO Expert Committee on Health Statistics[1] and the International Conference for the Seventh Revision of the International Lists of Diseases and Causes of Death[2] have both stressed the desirability of devising methods of recording vital and health information suited to conditions in underdeveloped areas, and particularly to those areas where there is a dearth, or even a complete absence, of physicians for diagnostic purposes.

2. Various degrees of deficiency in vital and health recording in underdeveloped areas

2.1 Countries in which the whole territory enjoys the services of an adequately numerous an qualified medical profession, capable of ascertaining and certifying the cause of practicall every death, and of an efficient administrative machinery, registering all births, deaths, and causes of death, and publishing them annually, as specified in WHO Regulations No. 1 (1948), on health statistics may be considered as statistically developed. However, the number of such countries is limited.

2.2 There is a large variety of conditions of "statistical underdevelopment" of countries. These conditions are seldom uniform throughout the countries concerned, and indeed may vary from full development (as described above) in the chief city or cities, to complete absence of any form of health recording in outlying areas, where physicians, and even administrative machinery, may not exist. It would be more proper, therefore, to speak of statistically underdeveloped areas than of underdeveloped countries.

2.3 One may observe here that, of the many countries which do not issue regularly vital and health statistics for the whole of their territories, few are truly destitute of such statistics. Most of them at least have material which, by judicious and comparatively simpl treatment, could yield health statistics, or at least numerical information of practical value to the health administration.

2.3.1 There may be urban areas in which vital and health registration is practised on more or less standard lines and medical certificates from practitioners are available in respect of a fraction at least of the deaths. If these areas are well defined, and the deaths of

---

[1] Document WHO/HS/56 (1954) item 5, pp. 14-16.

[2] Document WHO/HS/7 Rev.Conf./17 (Rev.1) (1955) item 2, pp. 11-12.

which the cause is medically certified are compiled separately from those for which the cause is known only from statements from lay family members, they may well furnish valuable health statistics.

2.3.2 In many towns where medical practitioners are too few for any death registration system to be based on their certificates, there are hospitals in which records of patients' treatments and/or deaths are based on reliable medical diagnoses. Hospital records, if properly kept and analysed, may therefore constitute a very valuable source of knowledge on the diseases prevailing in a particular country or in parts of a country, and indeed serve as a means of checking returns obtained from other sources.

2.3.3 In some countries there exists, apart from the hospitals enjoying the services of physicians, a network of medical outposts, i.e. small out-patient dispensaries equipped for elementary medical and surgical treatment and manned by dressers, male or female nurses, or other local types of junior semi-medical personnel. The records of such outposts, if kept on properly devised forms, can contribute very useful information as regards prevailing morbidity.

2.3.4 In some territories with a scattered population a system of mobile units replaces or complements the network of hospitals and medical outposts. While mobile units generally concentrate on mass detection and mass treatment of a few specific conditions, such as sleeping sickness, yaws, leprosy, etc., they may record a variety of other conditions and provide valuable information on local morbidity.

2.3.5 There are, however, in many countries and territories, outlying areas where no medical or semi-medical personnel is available and concerning which the health authorities are not adequately or regularly informed.

2.3.5.1 In some such areas, births and deaths are registered for administrative and legal purposes, but causes of death are not properly recorded or even ascertained.

2.3.5.2 In others, conditions are even more primitive, and no record is kept of births, deaths, or their causes.

2.3.5.3 It is with a view to facilitating the filling of these gaps in the health registration system, due to the complete absence of local medical personnel, through the use of selected laymen, that the suggestions contained in the present paper are made.

3. Possibility of obtaining valuable basic vital and health records through laymen

3.1 The proposed system is based on a series of assumptions, each of which is based on experience gained in one or more areas.

3.1.1 The first assumption is that a person familiar with a local community, such as a village or small town, and possessing therein administrative or moral authority, or both, such as a village chief or government clerk, may learn of any birth or death occurring there, and of the circumstances relating to the deaths.

3.1.2 The second assumption is that, if provided with a convenient method of recording such events and circumstances, and a suitable financial or other inducement to do so, he will record them and send regularly the record to the central authority concerned.

3.1.3 The third assumption is that the causes of deaths as recorded by a layman, duly trained to do so, of course, may, if classified by a proper, even though simple, method, be interpreted by an epidemiologist with a knowledge of the country, of its lore and of its pathology, in such a way as to prove useful to the health authorities of the territory as a basis for practical action.

3.2 This last assumption being of a technical nature requires proving.

3.2.1 Age at death is in itself of considerable health significance. Whether death occurs at birth, during the period of breast feeding, during childhood, adulthood, or in old age, the general health implications are obvious. Now, it is not necessary to know the exact age at death, which will not be obtainable in a community where birth registration is not practised, or is of recent introduction.

The following broad "physiological" age-groups may well be used in this connexion: sucklings, youths, adults, old people (cf. paragraph 4.4.6). Any layman may record these age-groups.

3.2.2 Accidents and other violent deaths. Drowning, crushing by fallen trees, transport accidents, attacks from venemous snakes, scorpions, crocodiles, and other wild animals, suicide, homicide[1] and many injuries leading to infection and death, do not require medical knowledge for diagnosis, and may be readily recorded. Such is also the case for deaths of women in childbirth.

3.2.3 Broad symptoms, anatomical site, and duration of complaint may point to rough "diagnoses" of many conditions or groups of conditions.

(a) Abdominal pain, if accompanied by diarrhoea, will cover cholera (well known, wherever it occasionally prevails), dysentery, gastroenteritis, and some food poisonings.

(b) Abdominal pain without diarrhoea will cover gastrointestinal ulcers and tumours, appendicitis, intestinal obstruction (hernia is often well recognized), and many conditions relating to ovaries, tubes, and uterus.

(c) Cough, with a short illness, will cover influenza, pneumonia and broncho-pneumonias.

(d) Cough with a long illness will cover, inter alia, pulmonary tuberculosis and bronchiectasis.

(e) Shortness of breath with swelling of the legs will include many of the heart diseases.

(f) Difficulty or pain in passing urine will include many diseases of the kidneys, bladder and urinary passages.

(g) Jaundice of the skin, and of the eyeballs (more readily recognized in coloured races) will point to acute and chronic conditions of the liver and bile passages.

3.2.4 A good many of the "fevers" may be further identified by the mention of some symptoms associated with them. Thus, skin eruptions will point to the eruptive fevers, smallpox, measles, typhus (any of which may be well known locally and designated by a vernacular name). Headache and stiffness of the neck will indicate cerebrospinal meningitis and meningitis from other causes. Repetition of the febrile attacks will single out malaria, relapsing fevers and brucellosis.

3.3 Checking of the lay diagnoses by the epidemiologist. If the deaths are recorded on single lines and in chronological order, the very proximity of certain deaths with a similar diagnosis will indicate the probable "epidemic" character of the condition. Similarly, if the records are made out monthly, the concentration of certain fevers at certain seasons may suggest retrospectively the diagnosis: influenza or cerebrospinal meningitis in winter, P. falciparum malaria in early autumn.

---

[1] In many primitive communities, where the belief in evil influences at a distance is widespread, only deaths from actual injuries sustained from other men should be accepted as due to homicide.

3.4 It is admitted that the system of lay recording of causes of death described above is too crude to provide reliable individual diagnoses, even when checked by an epidemiologist. It is believed, however, that when so checked, lay recording may provide community diagnoses. It may, for example, reveal an abnormal frequency of infant mortality, due to respiratory or to digestive causes, an excessive maternal mortality, or again water-borne or malarial infections.

Individual diagnoses would not be very useful in a community not enjoying medical treatment facilities; but community diagnoses may direct the attention of the health authorities to the most desirable and urgent community control measures or special campaigns.

4. Practical point regarding the establishment of a lay system of vital and health registration

4.1 Areas to be selected. As stated above, this system is particularly desirable in areas for which no medical or semi-medical information is available. Each area to be selected as a "vital and health recording area" should be large enough to allow its vital figures to be significant, and at the same time it should be small enough to enable the recorder to learn of any birth or death and the cause of the latter.

A village, or a group of neighbouring villages with a population of 3000 to 5000, would provide on an average 60 to 120 deaths a year, i.e. 5 to 10 per month, a number small enough not to overtax the recorder.

It will generally be found convenient to select an area where the population is not only physically concentrated but also racially homogeneous, so that the recorder may have access to all without barriers of tribe or clan. A homogeneous sample would also enable some inferences to be drawn as regards the whole of the ethnic group from which the sample is drawn.

In a territory with a fairly homogeneous population, sample areas will be selected on a geographical basis, each serving as a watch unit over a definite sector. In a territory inhabited by tribes of different races and living habits, sample areas will have to be selected in each of the most important racial communities.

In any case, each recording area will have to be sharply defined and correspond to a population, the number and the age composition of which are known through a recent census or an ad hoc survey.

4.2 The recorder

4.2.1 The recorder might be a tribal or village chief possessing first-hand knowledge of his people, to enable him to be apprised of any vital event occurring amongst them, and with authority to obtain information on circumstances relating to the deaths. He might exercise the "recordership" personnally, if he is literate, or entrust it to a clerk under his authority. The "recordership" might also be entrusted to a government official, as a part-time duty.

4.2.2 The first recorders appointed should be given a very short course of training in the principles and procedures involved, including the allocation to the items in the list of causes of death of a series of theoretical or actual cases, and also discussion of - and agreement on - specific diseases, which could be singled out in the list under a local vernacular name.

4.2.3 Recorders to be appointed in the later stages of the development of the scheme would, in addition to the above training, be shown on the spot the functioning of the scheme in one of the existing vital and health recording areas.

4.3 Facts to be recorded

4.3.1 Regular recording should be made:

4.3.1.1 first and foremost of deaths, with such details as may be obtained regarding their causes and the age and sex of the deceased;

4.3.1.2 also of births, this being necessary for an eventual computation of infant mortality (or at least "suckling mortality"), and also for gauging the natural increase or decrease of the population; and finally for the system to be in a position gradually to develop into a regular vital registration system, conforming with the United Nations requirements.[1]

4.3.2 The recorder should be in possession of figures relating to the population of his area by sex and age to make it possible eventually to compute rates specific for sex and age, even if, in the early stages of the system, no such computing is to be attempted at the recorder's level. The recorder should be in a position to make censuses by age and sex in his area at comparatively short intervals (every year or every second year) if general population censuses are carried out at five or ten year intervals only. These local censuses would constitute a check on the recording of births and deaths and vice versa.

4.3.3 The recorder might usefully add to his basic function of birth and death reporting the notification to the central or regional health authorities of the occurrence of epidemics of unusual violence or severity, whether he is able to give them a name or not. It must be borne in mind in this connection that the recording system is to function initially where no medical or semi-medical personnel is available. The health recorder must therefore act as an observation post for the benefit of the health administration, and raise the alarm in emergencies.

4.3.4 The local knowledge of the health recorder might also be made use of by entrusting him occasionally with the crude survey of some specific diseases well known to the local population, at any rate in their advanced stages, such as leprosy, sleeping-sickness, or yaws. Of course, the results of such a survey cannot be placed on the same level as a true survey by medical or semi-medical personnel. But even a crude survey may point to the need or otherwise for a true (medical) survey as a basis for the organization of a mass control action.

4.4 Form of recording

4.4.1 In view of the type of persons who are to act as recorders, the forms for recording should be as simple as is consistent with the purpose of the system, and should require as little actual writing as possible.

4.4.2 It is proposed that the health recorder should keep, as a matter of routine, a register of births and another of deaths, each of these registers to be made up of printed forms of monthly recording, one detachable sheet alternating with an identical but permanently bound sheet. The former sheet, filled by carbon transcript, should be detached monthly and sent as a regular report to the health authority, while the bound original would remain available for permanent local record. The thickness and quality of the paper should be such as to facilitate carbon transcription, thus avoiding not only unnecessary writing, but any possibility of error in copying. Under tropical conditions, preservation of the registers against insects and fungus growth may have to be ensured by metal or plastic boxes, or by chemical impregnation of the paper, or by spraying so as to ensure permanency of the records.

4.4.3 Numbering of the vital events

4.4.3.1 each vital event should be recorded, as far as possible, in chronological order, and given one numbered line on the page of the register. The number of the line, coupled with the number of the month and year, will furnish a convenient serial number for reference purposes (for instance, 57/6/8 = death No. 8 of June 1957).

---

[1] cf. Principles for a Vital Registration System (UN Statistical Papers, Series M, No. 19, New York, 1953).

4.4.3.2 The serial number may serve to identify a death in the table of causes of death, with the name of the deceased, which may be kept in a separate register with any information of legal interest (names of parents, next of kin, heirs, address), which may be considered desirable for civil purposes, but which does not concern the health authorities and should not encumber their files.

4.4.3.3 In order to facilitate the monthly despatch of carbon-transcript reports, each page of the register should relate to a month or to a fraction thereof. It may be found convenient to have each page contain ten numbered lines, so that the mere inspection of the page (or pages) will give the total of deaths recorded during the month.

4.4.4 Date of the vital event. Although this may not be considered essential there are advantages in recording the actual date of the birth or the death. This date may precede the month of recording.

The serial number relates to the recording and not to the chronological sequence of deaths. This will avoid corrections and consequent obscurities. It will also prevent the monthly report being held up before despatch to allow late insertions in the month's record.

4.4.5 Sex should be recorded. An abnormal male/female ratio of births may in some territories give an idea of the incompleteness of recording.[1]

4.4.6 Age of the deceased. In most underdeveloped areas, the precise age at death will not be known. Where it is known in years, even without certainty, it should be stated. If it is not known, the rough physiological age-grouping is to be used:[1]

(i) at birth: meaning a few minutes, hours, or even days from birth;

(ii) sucklings: this will include infants from birth till complete weaning. This period, according to local practice, will vary from twelve to forty months or so. If the length of this period is known, and the local population survey made along the same lines, the lack of general comparability is not very important;[2]

(iii) youth will include children and adolescents from the age of weaning to nubility. Here again local custom will usually sharply differentiate the youths who have and who have not been submitted to ritual initiation ceremonies, and who have been to the "bush schools" or otherwise. Age 15 may be considered a common limit for females. It is somewhat higher for males;

(iv) adult age, as regards females will be the age of fertility (roughly 15 to 45); for males it does not possess any sharp upper limit; it may however be considered to extend roughly to 15 years or so beyond what it is for females, i.e. up to 55 or 60; after which

(v) old age is reached.

---

[1] On the difficulties and causes of errors in the preparation and interpretation of vital statistics in Africa, one may consult my paper: "Notes on Vital Statistics in Africa", in League of Nations Epidemiological Report, 1932, Vol. 11, pp. 118-139, 167-189, particularly pages 183 et seq.

[2] If it is desired to ascertain more prescisely the age at death, one may use the following approximate distinctions:

Babies without any teeth and unable to walk = under 8 months
Babies with teeth but not yet walking = 8-12 months
Babies with teeth and able to walk = over 12 months.

See Granville Edge: "Vital Statistics and Public Health Work in the Tropics, page 33 (Baillière, Tindall and Cox, London, 1947); also from the author: "Vital Records in the Tropics", Routledge, London, 1932.

SUGGESTED FORM OF MONTHLY RECORD OF CAUSES OF DEATH: "NM" LIST OF CAUSES

.....
Health Recording Area

..... Province

Recorder's name and title:

.....

Signature .....

Month of: November 1956

Serial number	Date	Sex		Age					Causes of death																					
	day/month	Male	Female	At birth	Suckling	Youth	Adult	Old	Accident	Attack from venomous or other animal	Injury by other person (homicide)	Suicide	Woman dying in childbirth	Bellyache with diarrhoea	Bellyache without diarrhoea	Cough with short illness	Cough with long illness	Shortness of breath and swelling of legs	Sudden death (stroke)	Difficulty or pain in passing urine	Yellow skin and eyes with short illness	Yellow skin and eyes with long illness	Lumps (tumours)	Fever with skin eruption	Fever with headache and stiff neck	Fever with repeated attacks	Other fever	Other known cause of death	Cause unknown	More precise cause of death if known
	a	b	c	d	e	f	g	h	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	i
1	29/10		x				x						x																	-
2	4/11	x			x																								x	-
3	6/11		x				x			x																				Crocodile
4	12/11	x						x												x										-
5	13/11	x			1									x																-
6	20/11		x			4																		x						Smallpox
7	24/11		x				25										x													-
8	25/11	x			x											x														-
9	29/11	x					x		x																					Crushed by tree
0																														
		5	4	-	3	1	4	1	1	1	-	-	1	1	-	1	1	-	-	1	-	-	-	1	-	-	-	-	1	

State age in years if known precisely; otherwise show age-group by "x".

Indicate by "x" in appropriate column the approximate cause of death; if a more precise cause is known, specify it in column "i".

4.4.7 Causes of death. The form of monthly death record suggested provides for an approximate classification of the causes of death in 21 categories, with the possibility of specifying more accurately the cause of death, if due to an accident or to a disease which is well known locally.

The 21 categories in the list correspond, as far as practicable, with certain categories or sections of the International Statistical Classification, but this is a very rough correspondence because of the fundamental difference in the nature of the underlying "diagnosis" in the lists: medical as regards the standard International Statistical Classification, and non-medical in the case of the proposed list, which for this reason is designated as "NM" (non-medical).

A table of categories in the abridged and in the detailed International Lists, corresponding with the "NM" categories is appended. For the sake of brevity only the main causes of death are specified by name.

It must be emphasized that these lists are not to be taken as indications of proper assignment of causes, but of what may be expected. Thus an elephantiasic scrotum tumour is likely to be ascribed to NM15: (lumps, tumour) a category which, on the other hand, will unfortunately not include most neoplasms for lack of diagnosis.

4.4.8 The symptoms mentioned in the list of causes of death may be expressed in the vernacular or in the language of the administration, but in this case the simplest and most common terms are to be preferred, all esoteric medical terms being banned; thus "bellyache" will be preferred to abdominal pain; difficulty or pain in passing urine to dysuria; yellow skin and eyes to jaundice, etc.

4.4.9 One must envisage the drawing up of a small handbook of instructions for the recorders containing not only a description of the procedures, but also the meaning of all medical terms used, and perhaps also outlines of questions to be put to the families in order to ascertain causes of death.

4.5 Medical interpretation of the non-medical diagnoses recorded. The NM diagnoses recorded constitute only basic material for interpretation by a qualified epidemiologist and medical statistician in the light of what is already known regarding prevailing diseases, and also of the local customs and ways of thinking, particularly in respect of spirits, "evil influences",[1] etc.

The vernacular names of some diseases which may be specified in column (i) are expected to be of particular value for interpretation of the crude records.

4.6 Compiling of statistics out of the NM death records. We have so far carefully abstained from using the word "statistics" in connection with the NM death records. We did not wish to create the impression that these records could, in fact, be placed on the same footing as standard statistics of mortality by cause based on medical certificates, or even hospital statistics.

We also wanted to avoid any belief that the proposed system was intended to provide statistics from countries as yet unable to contribute them to international statistical services in the United Nations or WHO. We believe, nevertheless, that, properly checked by a qualified medical officer, as stated above (4.4.8), and summed up into yearly totals large enough to be significant, and related to figures of population by age-groups (global and age-specific rates) the "NM" data can be made into a useful substitute for standard mortality statistics, if not for purposes of publication (as the international comparability would be poor) at least to provide the health administration with numerical information of sufficient reliability to serve as a guide for practical health action.

---

[1] This is why the "homicide" category has been so named as to include only physical attacks on the individual and not malignant "influences" by others.

The need for obtaining at fairly short intervals figures of population for the area, both global and according to the physiological age-groups adopted for death recording, must again be stressed here as a requirement for the computing of rates. Even in the absence of a precise population survey, the crude records may reveal significant seasonal and secular trends of the local pathology as monthly records accumulate over a period of years.

4.7 Use of statistics based on NM death records: need for keeping separate statistics from various sources. If statistics are eventually compiled from NM death records obtained through the method described above, care must be exercised to keep them separate from those compiled from other sources, both medical and "semi-medical".

A now very long practice in the international compiling and use of health statistics has convinced us that the main cause of the lack of international comparability of mortality statistics, or indeed of the unreliability of such statistics, is the indiscriminate pooling of data of various degrees of reliability in an attempt to produce "national" statistics.

When certain statistics compiled by a civil vital registration system are stated to be based, as regards causes of death, on verbal statements made to the registrars by members of the family of the deceased, unsubstantiated by medical opinion, because in most cases the fatal illness was not medically attended, then one knows, or at least one may guess, to what extent the diagnoses of cause must be discounted. In such statistics, certain "diagnoses" have a greater degree of credibility than others.

These diagnoses of cause of death, coupled with a fairly reliable age and sex distribution of such deaths, will allow some estimate to be made of the health situation of the population concerned.

If, however, one deals with a mixture of heterogeneous diagnoses, some from attending physicians, some from medical death certifiers (post-mortem inspection), and others made by lay registrars from statements from the families, it becomes quite impossible to estimate the significance of these diagnoses and of their resulting mixture.

Where civil registration does not exist, the mixture of medical diagnoses from physicians and of semi-medical diagnoses from dressers and nurses in the outlying dispensaries is equally undesirable. The two sets of data, if separate, would be valuable; but they are spoiled by their very mixture.[1]

The practical conclusion is that mortality statistics based on data collected under different conditions and with diagnoses of cause made by different types of persons should be kept separate, even if issued in the same publication, with very precise statements as regards the areas covered and the reliability of the date (registration areas of different grades).

5. Relationships between the proposed system lay recording of causes of death and the health administration on the one hand, and the civil or vital registration system where it does exist, on the other

5.1 It should be quite clear from the above description that it is not recommended, or even suggested, that a system of vital and health recording be built up independently of the health administration; nor is it intended to favour the use of lay personnel in preference to medical or semi-medical personnel.

The system described is designed first and foremost to provide basic health data for the health administration, in areas where there is no medical or semi-medical personnel.

---

[1] The following comparison illustrates the point. If the water supply of a community includes both a small spring of pure water and abundant but dirty water from a river, nothing will be gained by mixing them. A little clean water added to the dirty water will not make it appreciably better; and the addition of even a little dirty water to the clean will be sufficient to spoil it.

5.2 It is believed, however, that the establishment of more hospitals and of more medical outposts in the future, when trained medical or semi-medical staff becomes available, need not do away with the system proposed, as presumably the medical staff will remain primarily concerned with morbidity while the system relates essentially to mortality and its causes.

5.3 The hospital or medical posts data relate only to patients seeking medical assistance, and such patients may be attracted from a wide and undefined area. They cannot therefore provide rates related to any definite population.

5.4 The mortality recording by lay personnel is, on the other hand, sharply limited to a definite population and is intended to cover all deaths within that population. With a varying degree of reliability it will therefore provide mortality rates.

5.5 While the system described is primarily intended as a sample one, it may, if successful, be gradually extended to cover increasingly large areas (health recording areas). It may also be improved in such a way as to constitute the nucleus of a regular vital registration system.

5.6 Indeed, where such civil registration system does already exist, it should be readily merged with it, to provide information on causation of deaths in addition to their mere recording.

6. Summary

A system is described for the recording of vital events and crude causes of death by laymen in underdeveloped areas without medical or even semi-medical personnel.

Simple forms are suggested for this purpose, together with a list of 21 causes of death. These forms are so worded as to enable a "non-medical" person to use them, and thus furnish to the health authorities basic data which, when interpreted by an epidemiologist, will give them some idea of the health conditions and needs of the population concerned.

APPENDIX

Approximate relationship between the NM List of Causes of Death and the Abbreviated (B) List, and the Detailed International Statistical Classification

NM Category		Corresponding categories in: International Abbreviated List		Detailed International Classification
NM 1	ACCIDENTS	Motor vehicle accidents	BE 47	E 810-835
		Other accidents	BE 48	E 800-802
				E 840-965
NM 2	ATTACKS FROM VENOMOUS AND OTHER ANIMALS			E 927, 928
NM 3	INJURY BY OTHER PERSON (HOMICIDE)	Homicide	B 50	E 980-985
		Death in war		E 990-999
NM 4	SUICIDE		BE 49	E 970-979
NM 5	DEATH OF WOMAN IN CHILDBIRTH	Complications of pregnancy	B 40	640-652
		Childbirth and puerperium		670-689
NM 6	BELLYACHE WITH DIARRHOEA	Cholera	B 5	043
		Dysentery	B 6	045-048
		Salmonella infections		041-042
		Food poisoning		049
		Gastroenteritis	B 36	571-573
				785
NM 7	BELLYACHE WITHOUT DIARRHOEA	Ulcer of stomach and duodenum	B 33	540-541
		Appendicitis	B 34	550-553
		Hernia and intestinal obstruction	B 35	560, 561, 570
		Peritonitis		576, 577, 578
				584, 587, 784
				785, 011
		Also in females: diseases of ovaries, tubes and uterus		622-626
				630-633
NM 8	COUGH WITH SHORT ILLNESS	Influenza	B 30	480-483
		Pneumonia and bronchopneumonia	B 31	490-493
		Whooping cough	B 9	056
		Acute bronchitis		500
NM 9	COUGH WITH LONG ILLNESS	Pulmonary tuberculosis	B 1	001-008
		Bronchitis, unqualified and chronic	B 32	501-502
		Lung abscess		521
		Bronchiectasis		526, 783

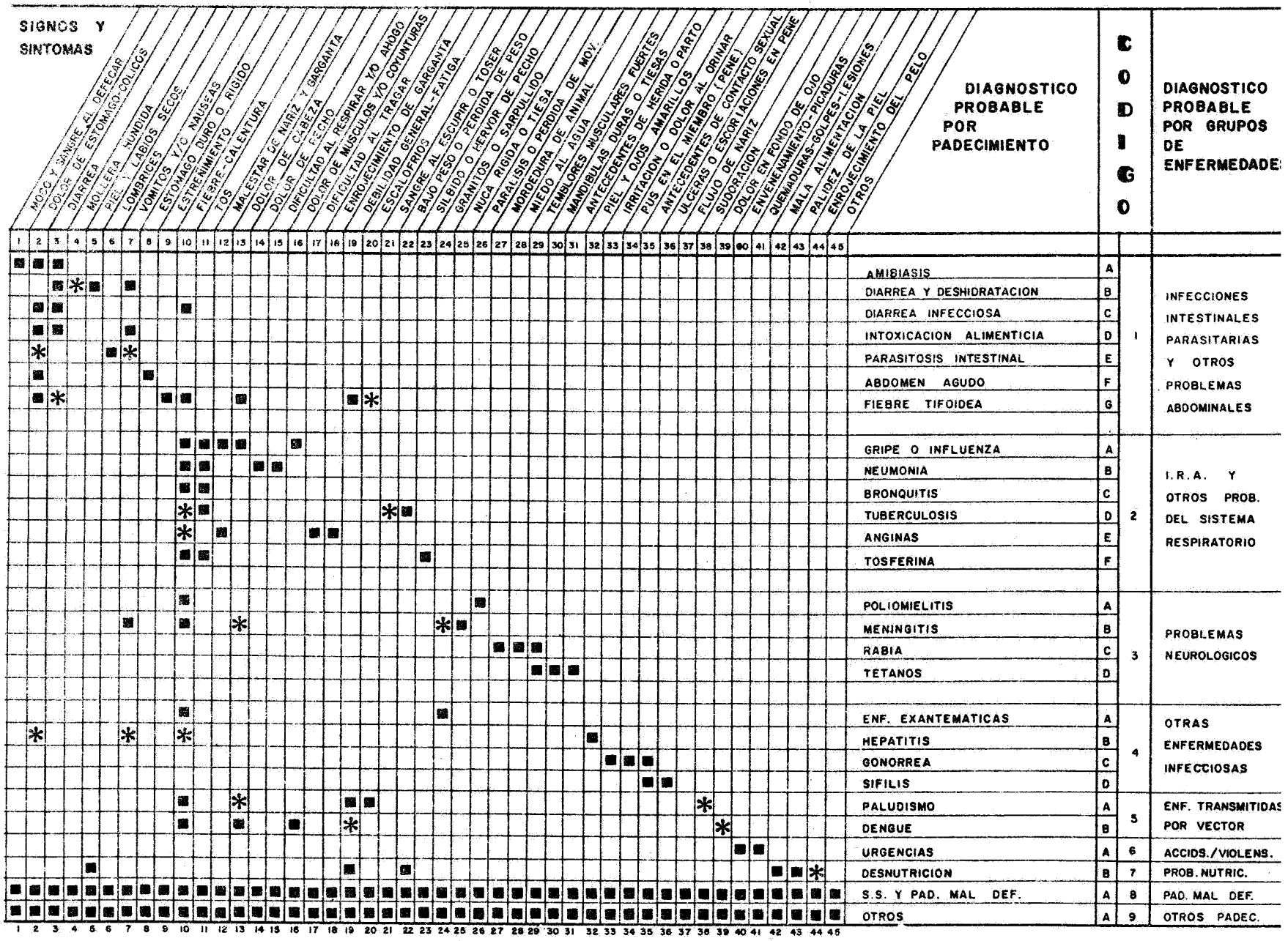
Appendix

NM Category		Corresponding categories in: International Abbreviated List		Detailed International Classification
NM 10	SHORTNESS OF BREATH WITH SWELLING OF LEGS	Chronic rheumatic heart disease	B 25	410-416
		Other diseases of heart	B 27	430-436
		Hypertension with heart disease	B 28	440-443
		Hypertension without mention of heart disease	B 29	444-447 522, 782
NM 11	SUDDEN DEATH (STROKE)	Vascular lesions affecting the central nervous system	B 22	330-334
		Arteriosclerotic and degenerative heart disease	B 26	420-422 782, 795.2 795.4
NM 12	DIFFICULTY OR PAIN IN PASSING URINE	Diseases of urinary tract		600-609
		Nephritis and Nephrosis	B 38	590-594
		Hyperplasia of prostate	B 39	610-612 786, 016
NM 13	YELLOW SKIN AND EYES, WITH SHORT ILLNESS	Yellow fever		091
		Acute atrophy of liver		580
		Leptospirosis		072
NM 14	YELLOW SKIN AND EYES WITH LONG ILLNESS	Cirrhosis of liver	B 37	581
		Cancer of liver		155-156
		Other diseases of liver		582-586
NM 15	LUMPS (TUMOURS)	Malignant neoplasms	B 18	140-205
		Benign and unspecified neoplasm	B 19	210-239
		Goitre		250-254
		Elephantiasis		127
NM 16	FEVER WITH SKIN ERUPTION	Smallpox	B 13	084
		Measles	B 14	085
		Typhus and other rickettsioses	B 15	100-108
NM 17	FEVER WITH HEADACHE AND STIFF NECK	Tuberculous meningitis	p. B 2	010
		Cerebrospinal meningitis	p. B 10	057
		Non-meningococcal meningitis	B 23	340
		Acute encephalitis and poliomyelitis		080-083 342-344 392-393

Appendix

NM Category	Corresponding categories in: International Abbreviated List		Detailed International Classification
NM 18 FEVER WITH REPEATED ATTACKS	Malaria	B 16	110-117
	Relapsing fevers	p. B 17	071
	Brucellosis		044
NM 19 FEVERS - OTHER (UNQUALIFIED)	Typhoid fever	B 4	040
	Rheumatic fever	B 24	400-402
	Trypanosomiasis		121
	All other infective and parasitic diseases	p. B 17	
NM 20 OTHER KNOWN CAUSES OF DEATH	Diabetes	B 20	260
	Mental and neurological conditions		780, 300-326
	Diseases of the sensory organs		690-716
	Diseases of the organs of movement		720-749, 787
	All other diseases	B 46	
NM 21 UNKNOWN CAUSE	21.1 In a newborn baby (at birth)		
	Congenital malformation	B 41	750-759
	Birth injuries, asphyxia and atelectasis	B 42	760-762
	Infections of newborn		767-771
	Immaturity		774-776
	21.2 In a suckling		
	Diseases of early infancy	B 44	772-773
	Gastroenteritis		571.0
	21.3 In an old person		
	Senility	p. B 45	795
	21.4 In other age-groups		795

PLANTILLA PARA EL MICRODIAGNOSTICO FAMILIAR



DIAGNOSTICO PROBABLE POR PADECIMIENTO	CODIGO		DIAGNOSTICO PROBABLE POR GRUPOS DE ENFERMEDADES
AMIBIASIS	A	1	INFECCIONES INTESTINALES PARASITARIAS Y OTROS PROBLEMAS ABDOMINALES
DIARREA Y DESHIDRATACION	B		
DIARREA INFECCIOSA	C		
INTOXICACION ALIMENTICIA	D		
PARASITOSIS INTESTINAL	E		
ABDOMEN AGUDO	F		
FIEBRE TIFOIDEA	G		
GRIPE O INFLUENZA	A	2	I.R.A. Y OTROS PROB. DEL SISTEMA RESPIRATORIO
NEUMONIA	B		
BRONQUITIS	C		
TUBERCULOSIS	D		
ANGINAS	E		
TOSFERINA	F		
POLIOMIELITIS	A	3	PROBLEMAS NEUROLOGICOS
MENINGITIS	B		
RABIA	C		
TETANOS	D		
ENF. EXANTEMATICAS	A	4	OTRAS ENFERMEDADES INFECCIOSAS
HEPATITIS	B		
GONORREA	C		
SIFILIS	D		
PALUDISMO	A	5	ENF. TRANSMITIDAS POR VECTOR
DENGUE	B		
URGENCIAS	A	6	ACCIDS./VIOLENS.
DESNUTRICION	B	7	PROB. NUTRIC.
S.S. Y PAD. MAL DEF.	A	8	PAD. MAL DEF.
OTROS	A	9	OTROS PADEC.

FAMILY SHEET

7. Physical Environment
- Source of drinking water
- Toilet type
- Waste disposal
- Kitchen type
- Housing type
- Disaster proneness

1. HOUSE NO.
2. FAMILY NO.
3. POPULATION GROUP
4. Name of head of FAMILY
5. Address
6. Role in Community

14 RISK FAMILY SCORE 0, 1, 2
(no. of persons and or severity of condition neg. spl. care)

11. INDIVIDUALS DATA

S.No	Name	Sex	Age	Civil State	Relation to HOF	Occupation	Years of edn.	IDA	LBW	Marasmus	TB	Lep.	Nephritis	Diarrhoea	Measles	Pertussis	ART	Diabetes	Cancer	CVD	Others (spl. del.)	NORMAL	AT RISK	FP PLACE PNC	CASE UNDER CARE	NONE	PARTLY	FULLY	DELIV. DATE	DELIV. PLACE	DELIV. OUTCOME	DIES DATE	DIES CAUSE	MIG ROTE	MIG PLACE	MIG RECEIVE

NEED FOR SPL. CARE — PRIORITY DISEASE
PRESENT STATUS — PREG. — IMMN.

↳ Low Birth Wt.
↳ Impairment, disability or Handicap.

13 BEHAVIOUR & LIFE STYLE
- Alcoholic
- Smoker
- Drug addict
- .
- .
- .

8. RESOURCES
- Land owner
- Cattle
- Kitchen garden
- Tractor, Lorry..
- .

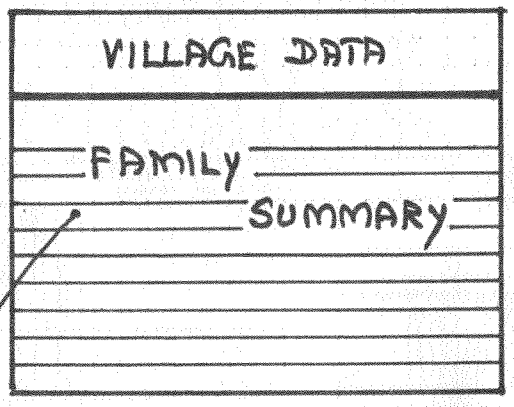
9. Source of income

10. Social Security and/or insurance support

12. SPECIAL CARE POINTERS
- Single parent family
- Premature morbidity
- Mental disorder
- :

14 Date of update

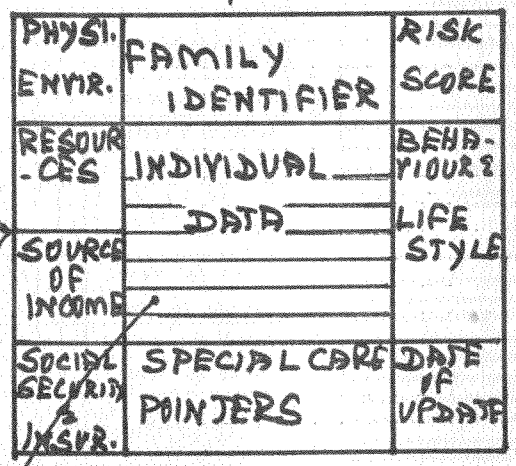
VILLAGE RECORD



Area & topology; popln. groups, education-transport-communication facilities, health and social institutions & other basic amenities

For each family (HH), eligibles for health care incl. high risk persons for preventive and promotive/rehabilitative services, environment & "family-risk" score

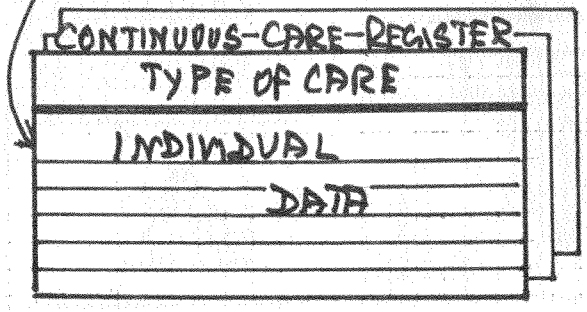
FAMILY SHEET



For each member of family, social data and MCH/FP status; need for special care, if any and vital events; incidence of priority diseases/conditions

For family, physical environment incl. housing, resources available, main source & income, behaviour/life style and health care financing

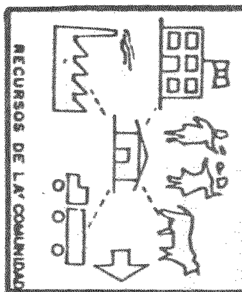
See reverse for Sample



For each individual eligible for special care, services given/received, follow-ups and details of findings to ensure continuity in the provision of care.

CEDULA DE MICRODIAGNOSTICO DE SALUD FAMILIAR

RECURSOS DE LA COMUNIDAD



ACCESO A MEDIOS COLECTIVOS DE TRANSPORTE Y COMUNICACION
1. CAMION (TRANSPORTE TERRESTRE)
2. TAXI (TRANSPORTE TERRESTRE)
3. TRANSPORTE AEREO
4. TRANSPORTE PLUVIAL
5. TELEFONO
6. TELEGRAFO
7. CORREO
8. TELEVISION
9. RADIO
10. PRENSA
11. OTROS

ACCESO A CENTROS EDUCATIVOS CULTURALES Y RECREATIVOS
1. ESCUELA OFICIAL
2. CENTRO CULTURAL
3. PARQUE RECREATIVO
4. CENTROS RELIGIOSOS
5. CANTINA - BARES
6. CENTROS DEPORTIVOS
7. CINES
8. OTROS

DISPONIBILIDAD DE SERVICIOS PUBLICOS
1. ALUMBRADO PUBLICO
2. PAVIMENTADO
3. DRENAJE PUBLICO
4. SERVICIO DE LIMPIA
5. VIGILANCIA (POLICIA)
6. OTROS

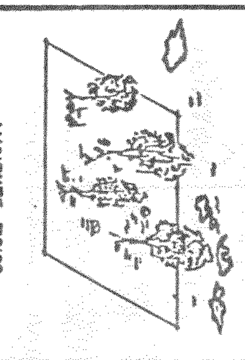
ACTIVIDAD ECONOMICA DEL ENTORNO
1. FABRICAS - INDUSTRIAS
2. ESTABLOS - GRANJAS
3. COMERCIOS - MERCADOS
4. AREAS DE CULTIVO
5. CAZA Y PESCA
6. OTRAS

UTILIZACION DE SERVICIOS DE SALUD
- OFICIALES: SSA / IMSS / ISSSTE / DIF (UNIDAD O CENTRO DE SALUD); PROMOTORES; OTROS
- PRIVADOS: MEDICOS PRIVADOS; FARMACEUTICOS; BENEFICENCIA CARIDAD; OTROS
- TRADICIONALES: PARTERAS - COMADRONAS; CURANDEROS; YERBEROS; HUESEROS; REMEDIOS CASEROS; OTROS

ACCESO A MERCADOS DE ABASTO
1. OFICIALES
2. NATURALES
3. OTROS

DISPONIBILIDAD DE TRANSPORTE PARTICULAR
1. CARRO
2. MOTOCICLETA
3. BICICLETA
4. BESTIA DE CARGA

AMBIENTE FISICO



contaminacion cercana (seguido 1 / de vez en cuando 2 / nunca 3 / no sabe no contesto 4)
- OLORES
- HUMOS
- TOLVANERAS / POLVOS
- DESECHOS FABRILES
- RUIDOS
- AGUAS SUCIAS ESTANCADAS
- TIRADEROS DE BASURA
- OTROS

formaciones naturales cercanas (SI / NO / 4)
- CERROS MONTAÑAS
- RIOS
- MAR
- LAGOS LAGUNAS
- CANAL DE DESAGÜE
- BOSQUE O VEGETACION EXCESIVA
- CUEVAS HOYOS
- OTROS

DATOS DE IDENTIFICACION

FAMILIA ______ COMUNIDAD ______
DOMICILIO ______ FECHA ______ RESPONSABLE ______

Nº	NOMBRE	EDAD: 1 AÑO, 1-4, 5-14, 15-44, 45-64, 65 y MAS	SEXO: HOMBRE, MUJER	EDO. CIVIL: CASADO, SOLTERO, UNION LIB, DIVORCIADO, SEPARADO, VIUDO, NO SABE NO CONTESTO	PARENTESCO: PADRE, MADRE, HIJO, PARIENTE, OTROS	EDUCACION: PRIMARIA, SECUNDARIA, PREP o EQUIV, LICENCIATUR, TECNICA, OTRAS; ALFABETA	INGRESO INDIVIDUAL MENSUAL	OCUPACION: HOGAR, ESTUDIANTE, CAMPESINO, EMPLEADO, OBRERO, ARTESANO, COMERCIANTE, OTRO
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								

SEGUIMIENTO PROGRAMATICO DE ACCIONES DE ATENCION PRIMARIA

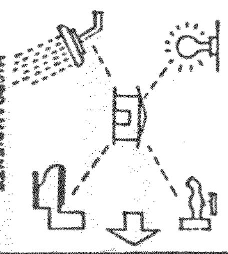
Nº	INMUNIZACIONES: DPT 1 2 3, BCG, SABIN 1 2 3, AS, OTROS	P. FAMILIAR: DIU, HORMONAL, DEFINITIVO, OTROS	OTRAS ACCIONES DE ATENCION PRIMARIA: APLIC. FLUOR, ATENCION PRENATAL, CAPTIC CANJUNT.
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

ESTILO DE VIDA

(SEGUIDO 1 / DE VEZ EN CUANDO 2 / NUNCA 3 / NO SABE NO CONTESTO 4)

- HABITOS ALIMENTICIOS: CARNE; HUEVOS; LECHE Y DERIVADOS; FRUTAS / VERDURAS; GRANOS (MAIZ, TRIGO, FRIJOL, ETC.); REFRESCOS EMBOTELLADOS; DULCES O AZUCARES; PASTELES Y FRITURAS; LAVADO DE ALIMENTOS; CONSUMO DE ALIMENTOS EN LA CALLE; POTABILIZACION DEL AGUA
- HIGIENE FAMILIAR: LAVADO DE MANOS; LIMPIEZA DE DIENTES; HIGIENE DEL CUERPO; LAVADO DE ROPA
- SANEAMIENTO: LIMPIEZA DE LA VIVIENDA; INCINERACION, ENTERRAMIENTO DE BASURA
- TOXICOMANIA: CONSUMO DE BEBIDAS ALCOHOLICAS; CONSUMO DE TABACO; CONSUMO DE MEDICAMENTOS SIN RECETA
- PRACTICA DE DEPORTES

MICROAMBIENTE



SERVICIOS DE LA VIVIENDA

- TENENCIA: PROPIA; RENTADA; PRESTADA; OTROS
- MATERIAL DE CONSTRUCCION
  - TECHO: PALMA; MADERA; LAMINA; CEMENTO; OTROS
  - PAREDES: CEMENTO; ADOBE; MADERA; CARTON; LAMINA; OTROS
  - PISO: CEMENTO; MADERA; TIERRA; OTROS
- AGUA: ENTUBADA (DENTRO / FUERA); POZO; NORIA; BOTES (TAMBOS); RIO; LLUVIA; OTROS
- EXCRETA: DRENAJE; LETRINA; FOSA SEPTICA; AL RAS DEL SUELO; OTROS
- LUZ: ELECTRICA (DENTRO / FUERA); OTROS
- COMBUSTIBLE: GAS (DENTRO / FUERA); OTROS
- VENTILACION: NATURAL; ARTIFICIAL
- DEPOSITO BASURA: DENTRO (ABIERTO / CERRADO); FUERA (ABIERTO / CERRADO)
- CUARTOS: DORMITORIOS; COCINA; ESTANCIA - COMEDOR; BAÑO (REGADERA); USO MULTIPLE (UNICO)

CONVIVENCIA CON ANIMALES

- DOMESTICOS (DENTRO / FUERA): PERROS; GATOS; PAJAROS; AVES DE CORRAL; CERDOS - VACAS; OTROS
- NOCIVOS (DENTRO / FUERA): RATAS; CUCARACHAS; PULGAS; PIOJOS; CHINCHES; MOSCAS; MOSQUITOS; OTROS

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE
WHO/ICD10/REV.CONF/89.8

ORIGINAL :ENGLISH

INTERNATIONAL CONFERENCE FOR THE TENTH REVISION
OF THE INTERNATIONAL CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

STATUS AND DEVELOPMENT OF THE INTERNATIONAL CLASSIFICATION OF IMPAIRMENTS, DISABILITIES AND HANDICAPS

by

Unit of Development of Epidemiological and Health Statistical Services

Background

The publication of the International Classification of Impairments, Disabilities, and Handicaps (ICIDH) was approved "for trial purposes" by the World Health Assembly in 1976. The classification provides a basis for order in conceptualizing and planning activities dealing with the consequences of disease. The introduction describes a progression of consequences following a disease event: a pathological change leads to impairment of structure or function, which may lead to disability - defined as modification or loss of the individual's ability to carry out certain activities; the disability may interact with the environment of an individual in such a way as to reduce the capacity to fulfil the role expected of this individual, thus creating a handicap.

ICIDH was published in English by WHO in 1980. The Classification and its introduction have been or are being translated into a dozen languages (see Annex 1). Its presentation of the basic consequences of disease has triggered major changes in attitude and practice among those working in the field of disablement, including policy makers, insurance organizations, staff working in patient care and rehabilitation, and organizations representing and concerned with people with disabilities.

Research and development on the ICIDH

This has followed a number of paths:

1. Definitions

All three major definitions have undoubtedly been instrumental in changing attitudes to disablement. The definition of impairment, an area where there is considerable overlap with the terms included in the International Classification of Diseases (ICD), has been widely accepted. The definition of disability broadly matches the field of action of rehabilitation professionals and groups, although the associated D-code is felt to pay insufficient attention to the gradation of severity, which is often a predictor of handicap. Problems of grading and problems of boundaries with handicap and impairment are felt to be particularly severe in the field of mental disability. Expressing a view which is more than mere semantics, several authors have suggested that the definitions of disability rely more on the

(residual) abilities of patients, in other words on what people can do rather than on what they cannot do. There is an increasingly expressed wish to revise the definition of handicap so as to put more emphasis on the effect of the environment, since handicaps result from factors in the environment which affect particularly those with disabilities, and the classification should deal as much with those factors as with characteristics of the individual.

2. Surveys

Population surveys using instruments compatible with the I- and D-codes have been used in several countries. Specialist surveys loosely based on the ICIDH have also been carried out, most notably in the field of mental health. The ICIDH has generally felt to be a useful and practical instrument in these surveys, although it has required ad hoc adaptation. Unfortunately, there have been a number of surveys in which the designers departed extensively from the ICIDH, and these have been quoted subsequently as examples of the unsuitability of the classification for survey purposes.

The United Nations Statistical Office has established a data base which pools data from over 60 countries, and has organized or reorganized the presentation of these data on the basis of the ICIDH. This provides a starting point for national surveys and will hopefully further encourage the sensible use of the ICIDH in this field.

3. Patient registration and rehabilitation

The ICIDH has been used as the basis for assessment of status and progress by rehabilitation professionals in several fields and many countries, including developing countries from South America and Asia and its usefulness in this area is increasingly appreciated. The availability of a standard approach has also attracted those involved with insurance assessment, and derivatives of the ICIDH are in use in at least three countries as the basis for comparison of insurance claims assessment.

The chief deficit felt by those who have used the ICIDH in the above areas is that of available gradings. Another difficulty is that of the suitability of ICIDH for use by health personnel in developing countries; a shortened or simplified version may have to be envisaged.

4. Policy formulation

The conceptual basis of ICIDH has positively affected the development of policies relating to disablement in the Netherlands, the Federal Republic of Germany, Quebec (Canada) and France. This often arose because high quality data based on the classification were available. In Quebec, the policies for the disabled have been very largely influenced by the Office des Personnes Handicapées, which has taken the concepts of the ICIDH as the basis of many of its policy decisions. In France, an official nomenclature of impairments, disabilities and handicaps (Nomenclature des déficiences, incapacités, désavantages), very closely based on the ICIDH, was issued on 4 May 1988 by the Ministère des Affaires sociales et de l'emploi, for use in studies and statistical work.

One particularly interesting development with implications for the assessment of progress towards the goals of Health for All has been the increasing interest in the measurement of life expectancy free from disability (LEFD), which provides a more qualitative approach to the measurement of life expectancy. The measurement of LEFD makes considerable use of the ICIDH in defining disability values.

ICIDH and the ICD

The Tenth Revision of the ICD has been formulated in such a way as to enable the development of a family of classifications. As the only classification concerned with consequences of disease and its impact on everyday life rather than with the disease itself or its etiology, the ICIDH is an important part of the family, and it is necessary to maintain some sort of common ground between the ICIDH and the ICD to simplify the parallel use of the two classifications. There is some concordance between the ICD and the I-code of the ICIDH, and the possibility has been considered of doing away with the I-code and using the ICD instead. This is unlikely, however, since the ICIDH considers functions first and foremost, a topic which is little considered by the ICD. There is also some overlap between the ICD and parts of the Disability code, but the dimension of severity, which is central to the D-code, is generally absent in the ICD.

Future developments

Some of the main areas in which work will be needed are the relationship of ICIDH items to ICD, the continuing application of ICIDH in mental health, and the development of ICIDH application to developing countries. As regards the latter point, there are encouraging signs that the ICIDH is being investigated and recognized as a practical tool in the American Region (Venezuela, Cuba) and in Pakistan, but, as stated earlier, the current format of ICIDH may require further adaptation.

Work is in progress on the ICIDH in several countries, and has been reviewed at several international meetings in recent years. A collaborating centre has been established in the Netherlands, and others are under way. These centres will share with each other and with WHO the results of their work, and will at the same time assist the coordination of work within their respective countries. The Office des Personnes handicapées du Québec has in recent years paid particular attention to work on definitions of handicap which take into account the role of physical and social environment; this important development should affect future revisions of ICIDH. The recent publication of a French version of ICIDH has renewed interest in a version of the introduction to ICIDH adapted for the general public; this would allow for a wider dissemination of its concepts to the general public, including persons with disabilities. Such a version should be considered by WHO together with the various centres involved.

The ICIDH is increasingly recognized as the classification which provides a common information base for complex and multisectoral activities in the field of disablement. It is likely that the impairments code will remain essentially unchanged in format. From the experiences of the groups that have used it, the Disabilities code needs a fairly major revision. Handicap is so much determined by culture that any attempt to achieve comparability of coding of handicap between cultures is very problematic. However, the demands from organizations of the disabled to give greater emphasis to environmental influences in the H-code suggests that there is need for such a classification; the reformulation of this classification will require extensive consultation with such organizations and with policy makers.

An ongoing bibliography of uses of ICIDH has been established by the Netherlands Collaborating Centres and should serve as a primary reference on the uses of ICIDH.

The rate of evolution of ideas and practices in the management of disablement has ruled out the production of a revised ICIDH in time to be submitted to the Revision Conference. At the same time, these changes demand a more flexible coding which takes into account the ICD but which is not governed by it. A definitive revision is therefore unlikely to be issued before 1993.

Versions of ICIDH known to DES

Chinese

[International classification of impairments, disabilities and handicaps], Beijing: People's Health Publication House, issed by Beijing Booksellers 1987. 300 pp.

Czech

Mezinárodní klasificace poruch disaptibility a handicapu. Bratislava (Limbova ul., 5 83305) 1984. 144 pp. Issued as Rehabilitácia, 1984, 17 (suppl 28).

Dutch

Internationale classificatie van stoornissen, beperkingen en handicaps 1980. Voorburg: Raad voor gezondheidsresearch, Prinses Beatrixlaan 428 Postbus 959 2270AZ, 1981. 156 pp (introduction to the English-language version omitted).

French

Classification internationale des handicaps : déficiences, incapacités et désavantages. Paris : INSERM/CTNERHI/OMS (diffusion PUF) 1988. 203 pp.

Italian

Classificazione internazionale delle mènomazioni, disabilità, e delle svantaggi esistenziali. Milano (Centro lombardo per l'educazione sanitaria, via P Pancrazi 12) 1983. 200 pp (introduction to the English-language version omitted).

Japanese

[International classification of impairments, disabilities and handicaps]. Tokyo (Statistics and Information Department of the Ministry of Health and Welfare) 1984. 373 pp (includes text in English and in Japanese).

Russian

Mezdunarodnaja klassifikacija naruseniij snizenija trudosposobnosti i social'noj nedostatocnosti. Moscow (Ministry of Public Health, USSR (Semasko Institute, ul Obukha 12) 1982. 187 pp.

Serbocroatian

Meduradnodna klasifikacija ostecenja, invaliditeta i hendikepa. Zagreb (Ministry of Health, Republic of Croatia) 1986. 163 pp.

Spanish

Clasificación internacional de deficiencias, discapacidades y minusvalías. Madrid (Instituto nacional de servicios sociales, calle Maria de Guzmán 52, Madrid-3), 1983. 281 pp.

A German and a Portuguese version are expected in 1989/1990. Other language versions are under consideration.

= = =

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.9

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

SPECIAL TABULATION LISTS FOR ICD-10

Introduction

The WHO mortality data bank receives information from countries at varying levels of aggregation. Some provide the full three-digit or even four-digit detail, while others report only at the level of the Basic Tabulation List (BTL). Data are only retained in the data bank however at the level of the BTL. The BTL, which was introduced at ICD-9, had been intended to provide a basic list for international reporting while allowing a certain flexibility at the national level. However, in practice, the absence of residual categories caused difficulties in data processing, while the inclusion of items from the four-digit subcategory level of ICD-9 meant that the list could not be used by countries which did not code to that level. Flexibility was lost when the BTL was published with an alphabetical index which included codes for residual items that did not appear in the list. As a result of these problems international comparability was affected and countries did not receive sufficient guidance in the development of national lists. Moreover, the BTL did not easily facilitate the assessment of leading causes of death. This has become increasingly important for Member States in the evaluation of their national health for all strategies. In order to overcome these difficulties the special tabulation lists were reviewed and discussed at several meetings of Heads of WHO Collaborating Centres for Classification of Diseases and two consultations on short lists were convened by WHO.

Mortality tablulation lists

A Consultation on Short Lists for ICD-10 was held in Geneva from 16 to 20 November 1987 (WHO/DES/EC/ICD-10/87.34). This group drafted a general mortality short list of 77 items and an infant mortality short list of 54 items, but had insufficient time to develop recommendations for morbidity short lists.

In drafting the two mortality short lists the consultation considered that bearing in mind the criteria of frequency, gravity, cost to the community and special interest in public health previously established by the Centre Heads, the lists should include those diseases which are the subject of international prevention programmes and which are important for health situation assessment (including the determination of leading causes), the planning and management of health services, surveillance and research. This includes the diseases which are covered by the International Health Regulations, other diseases under international surveillance, and the target diseases of the WHO Expanded Programme on Immunization.

The consultation strongly recommended that WHO should establish and maintain a mortality data bank for ICD-10 at the three-character level. This recommendation follows logically from the requirement that countries use ICD, at least at the core classification level. Most countries currently reporting data to WHO are already doing so at this level of detail. Others may be encouraged to do so by having WHO set this level as a target. The storage and retrieval of data at the three-character level would also greatly enhance the utility of the WHO data bank by avoiding serious losses of information resulting from grouping rubrics which cannot be subsequently separated.

The consultation also recommended: that the Mortality Short list and the Infant Mortality Short list be used as reporting lists for those countries unable to submit data at the three-character level and by WHO and the United Nations as the basis for the publication of mortality data by cause.

The general mortality short list was evaluated by WHO in terms of the coverage of the specific items in the list and the results were discussed by the Centre Heads in June 1988. The Centre Heads then made a number of recommendations for amendment to the list and the resultant list was further evaluated by WHO. On the basis of this evaluation a further revision of the list was submitted to the Centre Heads when they met again in February 1989.

In order to make the list more meaningful it was proposed by the Centre Heads that the chapter titles should be included in the lists as well as residual items for chapters where necessary.

In reviewing the infant mortality list the Centre Heads questioned whether it would be preferable to have a list that was suitable for deaths up to the age of five years, with the addition of accidents and other causes relevant to that age-group, in view of the fact that mortality up to age five was a more robust indicator than infant mortality.

In order to facilitate the meaningful ranking of leading causes of death the mortality short lists as proposed contain two distinct types of residual groups of diseases. Homogeneous groups to be included as leading causes of death are labelled "Other ...", while groups containing widely disparate conditions are labelled "Remainder of ..." or "All other ...". It is recommended that those tabulating leading causes of death should do so from the items as defined in the general mortality short list of 75 causes (Annex A) with the exception of those items labelled "Remainder of ..." or "All other ...".

It is proposed that ICD-10 should contain detailed guidance on the derivation of leading causes of death and on the adaptation and extension of the tabulation lists for national purposes.

Morbidity Tabulation Lists

A Consultation on Morbidity Short lists for ICD-10 (DES/ICD/C/89.36) was held in Geneva from 7 to 11 November 1988. The consultation recommended two lists, a short tabulation list using an approach similar to that of the ICD-9 Basic Tabulation List and an intermediate list showing 298 causes. Both these lists were based on the dagger axis of classification.

The short tabulation list included chapter titles and identified certain specific conditions or groups of conditions within the chapters containing a total of 65 entries. The intermediate list was seen as a basis for national lists and for intercountry comparisons. The Centre Heads at their meeting in February 1989 recommended that to be useful the intermediate list should also include the chapter titles and to ensure flexibility it should be unnumbered.

Six tabulation lists are proposed as follows:

- GENERAL MORTALITY SHORT LIST (Annex A)
  75 causes

- MORTALITY TABULATION SHORT LIST (Annex B)
  100 causes

- GENERAL INFANT AND CHILD MORTALITY SHORT LIST (Annex C)
  50 causes

- INFANT AND CHILD MORTALITY TABULATION SHORT LIST (Annex D)
  66 causes

- SHORT TABULATION LIST FOR MORBIDITY (Annex E)
  this list includes 19 chapter titles (external causes are excluded and diseases of the eye and ear form a single group) and 51 detailed items.

- INTERMEDIATE TABULATION LIST FOR MORBIDITY (Annex F)
  this list includes the 19 chapter titles (as above) and 298 detailed items.

GENERAL MORTALITY SHORT LIST

1.	Cholera	A00
2.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
3.	Other intestinal infectious diseases	A01-A08
4.	Respiratory tuberculosis	A15-A16
5.	Other tuberculosis	A17-A19
6.	Plague	A20
7.	Tetanus	A33-A35
8.	Diphtheria	A36
9.	Whooping cough	A37
10.	Meningococcal infection	A39
11.	Septicaemia	A40-A41
12.	Infections with a predominantly sexual mode of transmission	A50-A64
13.	Acute poliomyelitis	A80
14.	Yellow fever	A95
15.	Other anthropod-borne viral haemorrhagic fevers	A90-A94, A96-A99
16.	Measles	B05
17.	Viral hepatitis	B15-B19
18.	Human immunodeficiency virus [HIV] disease	B20-B24
19.	Malaria	B50-B54
20.	Leishmaniasis	B55
21.	Trypanosomiasis	B56-B57
22.	Schistosomiasis	B65
23.	Remainder of certain infectious and parasitic diseases	A21-A32, A38, A42-A49, A65-A79, A81-A89, B00-B04 B06-B09, B25-B49, B58-B64 B66-B99
24.	Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
25.	Malignant neoplasm of oesophagus	C15
26.	Malignant neoplasm of stomach	C16
27.	Malignant neoplasm of colon, rectum and anus	C18-C21
28.	Malignant neoplasm of liver and intrahepatic bile ducts	C22
29.	Malignant neoplasm of pancreas	C25
30.	Malignant neoplasm of larynx	C32
31.	Malignant neoplasm of trachea, bronchus and lung	C33-C34
32.	Malignant neoplasm of breast	C50
33.	Malignant neoplasm of cervix uteri	C53
34.	Malignant neoplasm of other and unspecified parts of uterus	C54-C55
35.	Malignant neoplasm of ovary	C56
36.	Malignant neoplasm of prostate	C61
37.	Malignant neoplasm of bladder	C67
38.	Malignant neoplasm of meninges, brain and other parts of nervous system	C70-C72
39.	Non-Hodgkin's lymphoma	C82-C85
40.	Leukaemias	C91-C95
41.	Remainder of malignant neoplasms	C17, C23-C24, C26-C31, C37-C49, C51-C52, C57-C60 C62-C66, C68-C69, C73-C81, C88-C90, C96-C97

42. Anaemias	D50-D64
43. Diabetes mellitus	E10-E14
44. Malnutrition	E40-E46
45. Mental and behavioural disorders due to pyschoactive and other substance use	F10-F19
46. Meningitis	G00, G03
47. Acute rheumatic fever and chronic rheumatic heart disease	I00-I09
48. Hypertensive disease	I10-I15
49. Ischaemic heart disease	I20-I25
50. Other heart disease	I26-I51
51. Cerebrovascular diseases	I60-I69
52. Remainder of diseases of the circulatory system	I70-I99
53. Influenza	J12-J13
54. Pneumonia	J14-J20
55. Other acute lower respiratory infections	J10-J11, J21
56. Chronic lower respiratory diseases	J40-J47
57. Remainder of diseases of the respiratory system	J00-J06, J30-J39, J60-J98
58. Gastric and duodenal ulcer	K25-K27
59. Diseases of liver	K70-K76
60. Glomerular and renal tubulo-interstitial diseases	N00-N15
61. Pregnancy with abortive outcome	O00-O08
62. Other direct obstetric deaths	O10-O92
63. Indirect obstetric deaths	O98-O99
64. Certain conditions originating in the perinatal period	P00-P95
65. Congenital malformations, deformations and chromosomal	Q00-Q99
66. Symptoms, signs and abnormal clinical and laboratory findings NEC	R00-R99
67. All other diseases	D00-D48, D65-D89, E00-E07 E20-E35, E50-E90, F01-F09 F20-F99, G04-G99, H00-H95, K00-K22, K27-K66, K80-K92, L00-L98, M00-M99, N17-N99, O95-O99, S00-T98
68. Transport accidents	V00-V99
69. Falls	W00-W19
70. Accidental drowning and submersion	W65-W74
71. Exposure to smoke, fire and flames	X00-X09
72. Exposure to forces of nature	X30-X39
73. Accidental poisoning by and exposure to noxious substances	X40-X49
74. Assault	X85-Y09
75. All other external causes	W20-W64, W75-W99, X10-X29, X50-X84, Y10-Y89

MORTALITY TABULATION SHORT LIST

1.	CERTAIN INFECTIOUS AND PARASITIC DISEASES	A00-B99
2.	Cholera	A00
3.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
4.	Other intestinal infectious diseases	A01-A08
5.	Respiratory tuberculosis	A15-A16
6.	Other tuberculosis	A17-A19
7.	Plague	A20
8.	Tetanus	A33-A35
9.	Diphtheria	A36
10.	Whooping cough	A37
11.	Meningococcal infection	A39
12.	Septicaemia	A40-A41
13.	Infections with a predominantly sexual mode of transmission	A50-A64
14.	Acute poliomyelitis	A80
15.	Yellow fever	A95
16.	Other anthropod-borne viral haemorrhagic fevers	A90-A94, A96-A99
17.	Measles	B05
18	Viral hepatitis	B15-B19
19.	Human immunodeficiency virus [HIV] disease	B20-B24
20.	Malaria	B50-B54
21.	Leishmaniasis	B55
22.	Trypanosomiasis	B56-B57
23.	Schistosomiasis	B65
24.	Remainder of certain infectious and parasitic diseases	A21-A32, A38, A42-A49 A65-A79, A81-A89, B00-B04, B06-B09, B25-B49, B58-B64, B66-B99
25.	NEOPLASMS	C00-D48
26.	Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
27.	Malignant neoplasm of oesophagus	C15
28.	Malignant neoplasm of stomach	C16
29.	Malignant neoplasm of colon, rectum and anus	C18-C21
30.	Malignant neoplasm of liver and intrahepatic bile ducts	C22
31.	Malignant neoplasm of pancreas	C25
32.	Malignant neoplasm of larynx	C32
33.	Malignant neoplasm of trachea, bronchus and lung	C33-C34
34.	Malignant neoplasm of breast	C50
35.	Malignant neoplasm of cervix uteri	C53
36.	Malignant neoplasm of other and unspecified parts of uterus	C54-C55
37.	Malignant neoplasm of ovary	C56
38.	Malignant neoplasm of prostate	C61
39.	Malignant neoplasm of bladder	C67
40.	Malignant neoplasm of meninges, brain and other parts of nervous system	C70-C72
41.	Non-Hodgkin's lymphoma	C82-C85
42.	Leukaemias	C91-C95
43.	Remainder of malignant neoplasms	C17, C23-C24, C26-C31, C37-C49, C51-C52, C57-C60 C62-C66, C68-C69, C73-C81, C88-C90, C96-C97

44.	Remainder of neoplasms	D00-D48
45.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM	D50-D89
46.	Anaemias	D50-D64
47.	Remainder of diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D65-D89
48.	ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	E00-E89
49.	Diabetes mellitus	E10-E14
50.	Malnutrition	E40-E46
51.	Remainder of endocrine, nutritional and metabolic diseases	E00-E07, E15-E34, E50-E89
52.	MENTAL AND BEHAVIOURAL DISORDERS	F01-F99
53.	Mental and behavioural disorders due to psychoactive and other substance use	F10-F19
54.	Remainder of mental and behavioural disorders	F01-F09, F20-F99
55.	DISEASES OF THE NERVOUS SYSTEM	G00-G98
56.	Meningitis	G00, G03
57.	Alzheimer's disease	G30
58.	Remainder of diseases of the nervous system	G04-G25, G31-G98
59.	DISEASES OF THE EYE AND ADNEXA	H00-H59
60.	DISEASES OF THE EAR AND MASTOID PROCESS	H60-H95
61.	DISEASES OF THE CIRCULATORY SYSTEM	I00-I99
62.	Acute rheumatic fever and chronic rheumatic heart disease	I00-I09
63.	Hypertensive disease	I10-I15
64.	Ischaemic heart disease	I20-I25
65.	Other heart disease	I26-I51
66.	Cerebrovascular diseases	I60-I69
67.	Atherosclerosis	I70
68.	Remainder of diseases of the circulatory system	I71-I99
69.	DISEASES OF THE RESPIRATORY SYSTEM	J00-J98
70.	Influenza	J12-J13
71.	Pneumonia	J14-J20
72.	Other acute lower respiratory infections	J10-J11, J21
73.	Chronic lower respiratory diseases	J40-J47
74.	Remainder of diseases of the respiratory system	J00-J06, J30-J39, J60-J98
75.	DISEASES OF THE DIGESTIVE SYSTEM	K00-K92
76.	Gastric and duodenal ulcer	K25-K27
77.	Diseases of liver	K70-K76
78.	Remainder of diseases of the digestive system	K00-K22, K28-K66, K80-K92
79.	DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	L00-L98
80.	DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	M00-M99
81.	DISEASES OF THE GENITOURINARY SYSTEM	N00-N99
82.	Glomerular and renal tubulo-interstitial diseases	N00-N15
83.	Remainder of diseases of the genito-urinary system	N17-N99
84.	PREGNANCY, CHILDBIRTH AND THE PUERPERIUM	O00-O99
85.	Pregnancy with abortive outcome	O00-O08
86.	Other direct obstetric deaths	O10-O92
87.	Indirect obstetric deaths	O98-O99
88.	Remainder of pregnancy, childbirth and the puerperium	O95-O97
89.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	P00-P95

90.	CONGENITAL MALFORMATIONS, DEFORMATIONS, AND CHROMOSOMAL ABNORMALITIES	Q00-Q99
91.	SYMPTOMS, SIGNS AND ABNORMAL CLINICAL AND LABORATORY FINDINGS NOT ELSEWHERE CLASSIFIED	R00-R99
92.	EXTERNAL CAUSES OF MORBIDITY AND MORTALITY	V00-Y89
93.	Transport accidents	V00-V99
94.	Falls	W00-W19
95.	Accidental drowning and submersion	W65-W74
96.	Exposure to smoke, fire and flames	X00-X09
97.	Exposure to forces of nature	X30-X39
98.	Accidental poisoning by and exposure to noxious substances	X40-X49
99.	Assault	X85-Y09
100.	All other external causes	W20-W64, W75-W99, X10-X29, X50-X84, Y10-Y89

GENERAL INFANT AND CHILD MORTALITY SHORT LIST

1.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
2.	Other intestinal infectious diseases	A00-A08
3.	Tuberculosis	A15-A19
4.	Tetanus	A33, A35
5.	Diphtheria	A36
6.	Whooping cough	A37
7.	Meningococcal infection	A39
8.	Septicaemia	A40-A41
9.	Acute poliomyelitis	A80
10.	Measles	B05
11.	Human immunodeficiency virus [HIV] disease	B20-B24
12.	Other viral diseases	A81-B04, B06-B19 B25-B34
13.	Remainder of certain infectious and parasitic diseases	A20-A32, A38, A42-A79 B35-B99
14.	Leukaemia	C91-C95
15.	Remainder of malignant neoplams	C00-C90, C96-C97
16.	Anaemias	D50-D64
17.	Remainder of diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D65-D89
18.	Malnutrition and other nutritional deficiencies	E40-E64
19.	Meningitis	G00-G03
20.	Remainder of diseases of the nervous system	G04-G98
21.	Pneumonia	J14-J20
22.	Other acute respiratory infections	J00-J13, J21
23.	Diseases of the digestive system	K00-K92
24.	Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery	P00-P04
25.	Disorders relating to length of gestation and fetal growth	P05-P08
26.	Birth trauma	P10-P15
27.	Intrauterine hypoxia and birth asphyxia	P20-P21
28.	Respiratory distress	P22
29.	Congenital pneumonia	P23
30.	Other respiratory conditions of newborn	P24-P28
31.	Bacterial sepsis of newborn	P36
32.	Omphalitis of newborn with or without mild haemorrhage	P38
33.	Haemorrhagic and haematological disorders of fetus newborn	P50-P61
34.	Remainder of perinatal conditions	P29, P35, P37, P39, P70-P95
35.	Congenital hydrocephalus and spina bifida	Q03, Q05
36.	Other congenital malformations of the nervous system	Q00-Q02, Q04, Q06-Q07
37.	Congenital malformations of the heart	Q20-Q24
38.	Other congenital malformations of the circulatory system	Q25-Q28
39.	Down's syndrome and other chromosomal abnormalities	Q90-Q99
40.	Other congenital malformations	Q10-Q18, Q30-Q89

41. Sudden infant death syndrome	R95
42. Other symptoms, signs and abnormal clinical and laboratory findings NEC	R00-R94, R96-R99
43. All other diseases	D00-D48, E00-E34, E65-E89 F01-F99, H00-H95, I00-I99 J30-J98, L00-L98, M00-M99, N00-N99
44. Transport accidents	V01-V99
45. Accidental drowning and submersion	W65-W74
46. Other accidental threats to breathing	W75-W84
47. Exposure to smoke, fire and flames	X00-X09
48. Accidental poisoning by and exposure to noxious substances	X40-X49
49. Assault	X85-Y09
50. All other external causes	W00-W64, W85-W99, X10-X39, X50-X84, Y10-Y89

INFANT AND CHILD MORTALITY TABULATION SHORT LIST

1.	CERTAIN INFECTIOUS AND PARASITIC DISEASES	A00-A99
2.	Diarrhoea and gastroenteritis of presumed infectious origin	A09
3.	Other intestinal infectious diseases	A00-A08
4.	Tuberculosis	A15-A19
5.	Tetanus	A33, A35
6.	Diphtheria	A36
7.	Whooping cough	A37
8.	Meningococcal infection	A39
9.	Septicaemia	A40-A41
10.	Acute poliomyelitis	A80
11.	Measles	B05
12.	Human immunodeficiency virus [HIV] disease	B20-B24
13.	Other viral diseases	A81-B04, B06-B19 B25-B34
14.	Remainder of certain infectious and parasitic diseases	A20-A32, A38, A42-A79 B35-B99
15.	NEOPLASMS	C00-D48
16.	Leukaemia	C91-C95
17.	Remainder of malignant neoplams	C00-C90, C96-C97
18.	Remainder of neoplasms	D00-D48
19.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM	D50-D89
20.	Anaemias	D50-D64
21.	Remainder of diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D65-D89
22.	ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	E00-E89
23.	Malnutrition and other nutritional deficiencies	E40-E64
24.	Remainder of endocrine, nutritional and metabolic diseases	E00-E34, E65-E89
25.	DISEASES OF THE NERVOUS SYSTEM	G00-G98
26.	Meningitis	G00-G03
27.	Remainder of diseases of the nervous system	G04-G98
28.	DISEASES OF THE EAR	H60-H95
29.	DISEASES OF THE CIRCULATORY SYSTEM	I00-I99
30.	DISEASES OF THE RESPIRATORY SYSTEM	J00-J98
31.	Pneumonia	J14-J20
32.	Other acute respiratory infections	J00-J13, J21
33.	Remainder of diseases of the respiratory system	J30-J98
34.	DISEASES OF THE DIGESTIVE SYSTEM	K00-K92
35.	DISEASES OF THE GENITOURINARY SYSTEM	N00-N99
36.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	P00-P95
37.	Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery	P00-P04
38.	Disorders relating to length of gestation and fetal growth	P05-P08
39.	Birth trauma	P10-P15
40.	Intrauterine hypoxia and birth asphyxia	P20-P21

41. Respiratory distress	P22
42. Congenital pneumonia	P23
43. Other respiratory conditions of newborn	P24-P28
44. Bacterial sepsis of newborn	P36
45. Omphalitis of newborn with or without mild haemorrhage	P38
46. Haemorrhagic and haematological disorders of fetus newborn	P50-P61
47. Remainder of perinatal conditions	P29, P35, P37, P39, P70-P95
48. CONGENITAL MALFORMATIONS, DEFORMATIONS AND CHROMOSOMAL ABNORMALITIES	Q00-Q99
49. Congenital hydrocephalus and spina bifida	Q03, Q05
50. Other congenital malformations of the nervous system	Q00-Q02, Q04, Q06-Q07
51. Congenital malformations of the heart	Q20-Q24
52. Other congenital malformations of the circulatory system	Q25-Q28
53. Down's syndrome and other chromosomal abnormalities	Q90-Q99
54. Other congenital malformations	Q10-Q18, Q30-Q89
55. SYMPTOM, SIGNS AND ABNORMAL CLINICAL AND LABORATORY FINDINGS NEC	R00-R99
56. Sudden infant death syndrome	R95
57. Other symptoms, signs and abnormal clinical and laboratory findings NEC	R00-R94, R96-R99
58. All other diseases	F01-F99, H00-H59, L00-L98, M00-M99,
59. EXTERNAL CAUSES OF MORBIDITY AND MORTALITY	V00-Y89
60. Transport accidents	V01-V99
61. Accidental drowning and submersion	W65-W74
62. Other accidental threats to breathing	W75-W84
63. Exposure to smoke, fire and flames	X00-X09
64. Accidental poisoning by and exposure to noxious substances	X40-X49
65. Assault	X85-Y09
66. All other external causes	W00-W64, W85-W99, X10-X39, X50-X84, Y10-Y89

SHORT TABULATION LIST FOR MORBIDITY

A.	CERTAIN INFECTIOUS AND PARASITIC DISEASES	A00-B99
	Intestinal infectious diseases	A00-A09
	Tuberculosis	A15-A19
	Tetanus	A33-A35
	Diphtheria	A36
	Whooping cough	A37
	Acute poliomyelitis	A80
	Hepatitis	B15-B19
	Measles	B05
	Human immunodeficiency virus [HIV] disease	B20-B24
	Malaria	B50-B54
	Schistosomiasis	B65
C.	NEOPLASMS	C00-D48
	Malignant neoplasms	C00-C97
	Malignant neoplasm of colon, rectum and anus	C18-C21
	Malignant neoplasm of trachea, bronchus and lung	C33-C34
	Malignant neoplasm of breast	C50
	Benign neoplams and neoplasms of uncertain and unknown behaviour	D10-D48
D.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM	D50-D89
	Anaemia	D50-D64
E.	ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	E00-E89
	Diabetes mellitus	E10-E14
	Malnutrition	E40-E46
	Volume depletion	E86
F.	MENTAL AND BEHAVIOURAL DISORDERS	F01-F99
	Mental and behavioural disorders due to psychoactive and other substance use	F10-F19
G.	DISEASES OF THE NERVOUS SYSTEM	G00-G98
	Epilepsy	G40-G41
H.	DISEASES OF THE EYE AND EAR	H00-H95
	Conjunctivitis	H10
	Cataract	H25-H26
	Otitis media	H65-H66
I.	DISEASES OF THE CIRCULATORY SYSTEM	I00-I99
	Hypertensive disease	I10-I15
	Ischaemic heart disease	I20-I25
	Cerebrovascular diseases	I60-I69
J.	DISEASES OF THE RESPIRATORY SYSTEM	J00-J98
	Acute upper respiratory infections	J00-J06
	Pneumonia	J14-J20
	Chronic lower respiratory diseases	J40-J47

K.	DISEASES OF THE DIGESTIVE SYSTEM	K00-K92
	Gastric and duodenal ulcer	K25-K27
	Diseases of appendix	K35-K38
	Hernia	K40-K46
	Alcoholic liver disease	K70
	Cholelithiasis and cholecystitis	K80-K81
L.	DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	L00-L98
M.	DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	M00-M99
	Arthropathies	M00-M25
	Systemic connective tissue disorders	M30-M35
	Dorsopathies	M40-M54
N.	DISEASES OF THE GENITOURINARY SYSTEM	N00-N99
	Renal tubulo-interstitial diseases	N10-N15
	Urolithiasis	N20-N23
	Hyperplasia of prostate	N40
	Inflammatory diseases of female pelvic organs	N70-N76
O.	PREGNANCY, CHILDBIRTH AND THE PUERPERIUM	O00-O99
	Pregnancy with abortive outcome	O00-O08
	Hypertensive disorders in pregnancy, childbirth and the puerperium	O10-O11, O13-O16
	Obstructed labour	O64-O66
	Single spontaneous delivery	O80
P.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	P00-P95
Q.	CONGENITAL MALFORMATIONS, DEFORMATIONS, AND CHROMOSOMAL ABNORMALITIES	Q00-Q99
R.	SYMPTOMS, SIGNS AND ABNORMAL CLINICAL AND LABORATORY FINDINGS NOT ELSEWHERE CLASSIFIED	R00-R99
S.	INJURY, POISONING AND CERTAIN OTHER CONSEQUENCES OF EXTERNAL CAUSES	S00-T98
	Fractures of specified and multiple body regions	S02, S12, S22, S32, S42, S52, S62, S72, S82, S92, T02, T07-T08
	Intracranial injury	S06
	Burns and corrosions	T20-T32
	Poisoning and toxic effects	T36-T65
Z.	FACTORS INFLUENCING HEALTH STATUS AND CONTACT WITH HEALTH SERVICES	Z00-Z98

INTERMEDIATE TABULATION LIST FOR MORBIDITY

A. CERTAIN INFECTIOUS AND PARASITIC DISEASES	A00-B99
Cholera	A00
Typhoid and paratyphoid fevers	A01
Shigellosis	A03
Amoebiasis	A06
Diarrhoea and gastroenteritis of presumed infectious origin	A09
Other intestinal infectious diseases	A02, A04-A05, A07-A08
Respiratory tuberculosis	A15-A16
Other tuberculosis	A17-A19
Plague	A20
Brucellosis	A23
Leprosy [Hansen's disease]	A30
Tetanus neonatorum	A33
Other tetanus	A34-A35
Diphtheria	A36
Whooping cough	A37
Meningococcal infection	A39
Septicaemia	A40-A41
Other bacterial diseases	A21-A22, A24-A28, A31-A32, A38, A42-A49
Congenital syphilis	A50
Early syphilis	A51
Other syphilis	A52-A53
Gonococcal infection	A54
Sexually transmitted chlamydial diseases	A55-A56
Other infections with a predominantly sexual mode of transmission	A57-A64
Relapsing fevers	A68
Trachoma	A71
Typhus fever	A75
Acute poliomyelitis	A80
Rabies	A82
Viral encephalitis	A83-A86
Yellow fever	A95
Other viral haemorrhagic fevers	A96-A99
Herpesviral [herpes simplex] infections NEC	B00
Varicella [chickenpox] and zoster [herpes zoster]	B01-B02
Measles	B05
Rubella [German measles]	B06
Acute hepatitis B	B16
Other viral hepatitis	B15, B17-B19
Human immunodeficiency virus [HIV] disease	B20-B24
Mumps	B26
Other viral diseases	A81, A87-94, B03-B04, B07-B09, B25, B27-B34

Mycoses	B35-B49
Malaria	B50-B54
Leishmaniasis	B55
Trypanosomiasis	B56-B57
Schistosomiasis [bilharziasis]	B65
Other fluke infections	B66
Echinococcosis	B67
Dracunculiasis	B72
Onchocerciasis	B73
Filariasis	B74
Hookworm diseases	B76
Other helminthiases	B68-B71, B75, B77-B83
Sequelae of tuberculosis	B90
Sequelae of poliomyelitis	B91
Sequelae of leprosy	B92
Other infectious and parasitic diseases	A65-A67, A69-A70, A74; A77-A79, B58-B64; B85-B89, B94-B99
C. NEOPLASMS	C00-D48
Malignant neoplasm of lip, oral cavity and pharynx	C00-C14
Malignant neoplasm of oesophagus	C15
Malignant neoplasm of stomach	C16
Malignant neoplasm of colon	C18
Malignant neoplasm of rectosigmoid junction, rectum, anus and anal canal	C19-C21
Malignant neoplasm of liver and intrahepatic bile ducts	C22
Malignant neoplasm of pancreas	C25
Other malignant neoplasms of digestive organs	C17, C23-C24, C26
Malignant neoplasms of larynx	C32
Malignant neoplasm of trachea, bronchus and lung	C33-C34
Other malignant neoplams of respiratory and intrathoracic organs	C30-C31, C37-C39
Malignant neoplasm of bone and articular cartilage	C40-C41
Malignant melanoma of skin	C43
Other malignant neoplasm of skin	C44
Malignant neoplasm of mesothelial and soft tissue	C45-C49
Malignant neoplasm of breast	C50
Malignant neoplasm of cervix uteri	C53
Malignant neoplasm of other and unspecified parts of uterus	C54-C55
Other malignant neoplasms of female genital organs	C51-C52, C56-C58
Malignant neoplasm of prostate	C61
Other malignant neoplasms of male genital organs	C60, C62-C63
Malignant neoplasm of bladder	C67
Other malignant neoplasm of urinary tract¾	C64-C66, C68
Malignant neoplasm of brain	C71
Malignant neoplasm of eye and other parts of central nervous system	C69-C70, C72
Malignant neoplasm of other, ill-defined, secondary, unsepcified and multiple sites	C73-C75, C76-C80, C97
Hodgkin's disease	C81

	Non-Hodgkin's lymphoma	C82-C85
	Leukaemia	C91-C95
	Other malignant neoplasms of lymphoid, haematopoietic and related tissue	C88-C90, C96
	Carcinoma in situ of cervix	D06
	Benign neoplasm of skin	D22-D23
	Benign neoplasm of breast	D24
	Leiomyoma of uterus	D25
	Benign neoplasm of ovary	D27
	Benign neoplasm of urinary organs	D30
	Benign neoplasm of brain and other parts of central nervous system	D33
	Other in situ and benign neoplasms and neoplasms of uncertain and unknown behaviour	D00-D05, D07-D21, D26 D28-D29, D31-D32, D34-D48
D.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM	D50-D89
	Iron deficiency anaemia	D50
	Other anaemias	D51-D64
	Other diseases of blood and blood-forming organs	D65-D76
	Certain disorders invovling the immune mechanisms	D80-D89
E.	ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES	E00-E89
	Iodine-deficiency related thyroid disorders	E00-E02
	Thyrotoxicosis with or without goitre	E05
	Other disorders of thyroid	E03-E04, E06-E07
	Diabetes mellitus	E10-E14
	Malnutrition	E40-E46
	Vitamin A deficiency	E50
	Other vitamin deficiencies	E51-E56
	Sequelae of malnutrition and other nutritional deficiencies	E64
	Obesity	E66
	Volume depletion	E68
	Other endocrine, nutritional and metabolic disorders	E15-E34, E58-E63, E65 E67-E89
F.	MENTAL AND BEHAVIOURAL DISORDERS	F01-F99
	Dementia	F01-F03
	Mental and behavioural disorders due to use of alcohol	F10
	Mental and behavioural disorders due to other substance use	F11-F19
	Schizophrenia, schizotypal, and delusional disorders	F20-F29
	Mood [affective] disorders	F30-F39
	Neurotic, stress-related, and somatoform disorders	F40-F48
	Mental retardation	F70-F79
	Other mental and behavioural disorders	F04-F09, F50-F69, F80-F99

G.	DISEASES OF THE NERVOUS SYSTEM	G00-G98
	Inflammatory diseases of the central nervous system	G00-G09
	Parkinson's disease	G20
	Alzheimer's disease	G30
	Multiple sclerosis	G35
	Epilepsy and status epilepticus	G40-G41
	Migraine and other headache syndromes	G43-G44
	Transient cerebral ischaemic attacks and related syndromes	G45
	Nerve, nerve root and plexus disorders	G50-G58
	Cerebral palsy and paralytic syndromes	G80-G83
	Other diseases of the nervous system	G10-G25, G31, G36-G37, G47, G60-G72, G90-G98
H.	DISEASES OF THE EYE AND EAR	H00-H95
	Inflammation of eyelid	H00-H01
	Conjunctivitis	H10
	Keratitis	H16
	Cataract	H25-H26
	Retinal detachments and breaks	H33
	Glaucoma	H40
	Strabismus	H49-H50
	Disorders of refraction and accommodation	H52
	Blindness and low vision	H54
	Other diseases of the eye and adnexa	H02-H05, H11-H15, H17-H21, H27-H31, H34-H35, H43-H47, H51, H53, H55-H59
	Otitis media and mastoiditis	H65-H66, H70
	Hearing loss	H90-H91
	Other diseases of the ear and mastoid process	H60-H61, H68-H69, H71-H83, H92-H95
I.	DISEASES OF THE CIRCULATORY SYSTEM	I00-I99
	Acute rheumatic fever	I00-I02
	Chronic rheumatic heart disease	I05-I09
	Essential (primary) hypertension	I10
	Other hypertensive disease	I11-I15
	Acute myocardial infarction	I21-I22
	Other ischaemic heart disease	I20, I23-I25
	Pulmonary embolism	I26
	Conduction disorders and cardiac arrhythmias	I44-I49
	Heart failure	I50
	Other heart diseases	I27-I42, I51
	Cerebral haemorrhage	I60-I62
	Cerebral infarction	I63
	Stroke, not specified as haemorrhage or infarction	I64
	Other cerebrovascular diseases	I65-I69
	Atherosclerosis	I70
	Other peripheral vascular diseases	I73
	Arterial embolism and thrombosis	I74
	Other diseases of arteris, arterioles and capillaries	I71-I72, I77-I78
	Phlebitis, thrombophlebitis, venous embolism and thrombosis	I80-I82
	Varicose veins of lower extremities	I83
	Haemorrhoids	I84
	Other diseases of the circulatory system	I85-I99

J.	DISEASES OF THE RESPIRATORY SYSTEM	J00-J98
	Acute pharyngitis and acute tonsillitis	J02-J03
	Acute laryngitis and tracheitis	J04
	Other acute upper respiratory infections	J00-J01, J05-J06
	Acute bronchitis and acute bronchiolitis	J10-J11
	Influenza	J12-J13
	Pneumonia	J14-J20
	Chronic sinusitis	J32
	Other diseases of nose and nasal sinuses	J33-J34
	Chronic disease of tonsils and adenoids	J35
	Other diseases of upper respiratory tract	J30-J31, J36-J39
	Bronchitis, emphysema, and other chronic obstructive pulmonary diseases	J40-J44
	Asthma	J45-J46
	Bronchiectasis	J47
	Pneumoconiosis	J60-J65
	Other diseases of the respiratory system	J21, J66-J98
K.	DISEASES OF THE DIGESTIVE SYSTEM	K00-K92
	Dental caries	K02
	Other structures of teeth and supporting structures	K00-K01, K03-K08
	Other diseases of the oral cavity, salivary glands and jaws	K09-K14
	Gastric and duodenal ulcer	K25-K27
	Gastritis and duodenitis	K29
	Other diseases of oesophagus, stomach and duodenum	K20-K22, K28, K30-K31
	Diseases of appendix	K35-K38
	Inguinal hernia	K40
	Other hernia	K41-K46
	Crohn's disease [regional enteritis] and ulcerative colitis	K50-K51
	Paralytic ileus and intestinal obstruction without hernia	K56
	Diverticular disease of intestine	K57
	Other diseases of intestines and peritoneum	K52-K55, K58-K63, K65-K66
	Alcoholic liver disease	K70
	Other diseases of the liver	K71-K76
	Cholelithiasis and cholecystitis	K80-K81
	Acute pancreatitis and other diseases of the pancreas	K85-K86
	Other diseases of the digestive system	K82-K83, K90-K92
L.	DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	L00-L98
	Infections of the skin and subcutaneous tissue	L00-L08
	Other diseases of the skin and subcutaneous tissue	L10-L98

M.	DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	M00-M99
	Rheumatoid arthritis and other inflammatory polarthropathies	M05-M13
	Arthrosis	M15-M19
	Acquired deformities of limbs	M20-M21
	Other disorders of joints	M00-M02, M22-M25
	Systemic connective tissue disorders	M30-M35
	Cervical, lumbar and other disc disorders	M50-M51
	Other dorsopathies	M40-M48, M53-M54
	Soft tissue disorders	M60-M79
	Disorders of bone density and structure	M80-M85
	Osteomyelitis	M86
	Other diseases of the musculoskeletal system and connective tissue	M87-M99
N.	DISEASES OF THE GENITOURINARY SYSTEM	N00-N99
	Acute and rapidly progressive nephritic syndromes	N00-N01
	Other glomerular diseases	N02-N07
	Renal tubulo-interstitial diseases	N10-N15
	Renal failure	N17-N19
	Urolithiasis	N20-N23
	Cystitis	N30
	Other diseases of the urinary system	N25-N28, N31-N39
	Hyperplasia of prostate	N40
	Other disorders of prostate	N41-N42
	Hydrocele and spermatocele	N43
	Redundant prepuce, phimosis and paraphimosis	N48
	Other diseases of male genital organs	N44-N47, N49-N50
	Disorders of the breast	N60-N64
	Salpingitis and oophoritis	N70
	Inflammatory disease of cervix	N72
	Other inflammatory diseases of female pelvic organs	N71, N73-N76
	Endometriosis	N80
	Female genital prolaps	N81
	Noninflammatory disorders of ovary, fallopian tube and broad ligament	N83
	Disorders of menstruation	N91-N92
	Menopausal and other perimenopausal disorders	N95
	Female infertility	N97
	Other noninflammatory disorders of female genital tract	N82, N84-N90, N93-N94 N96, N98-N99
O.	PREGNANCY, CHILDBIRTH AND THE PUERPERIUM	O00-O99
	Spontaneous abortion	O03
	Medical abortion	O04
	Other pregnancies with abortive outcome	O00-O02, O05-O08
	Oedema, proteinaria and hypertensive disorders in pregnancy, childbirth and the puerperium	O10-O16
	Other maternal care related to fetus and amniotic cavity and possible delivery problems	O30-O43, O47-O48
	Placenta praevia,premature separation of placenta [abruptio placentae] and antepartum haemorrhage	O44-O46
	Obstructed labour	O64-O66
	Postpartum haemorrhage	O72
	Other complications of pregnancy and delivery	O20-O29, O60-O63, O67-O71 O73-O75

	Single spontaneous delivery	O80
	Complications predominantly related to the puerperium	O85-O92
P.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	P00-P95
	Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery	P00-P04
	Slow fetal growth, fetal malnutrition and disorders related to short gestation and unspecified low birthweight	P05-P07
	Birth trauma	P10-P15
	Intrauterine hypoxia and birth asphyxia	P20-P21
	Other respiratory disorders in the newborn originating in the perinatal period	P22-P28
	Congenital infectious and parasitic diseases	P35-P37
	Other infections specific to the perinatal period	P38-P39
	Haemolytic disease of fetus or newborn	P55
	Other conditions originating in the perinatal period	P08, P29, P50-P54 P56-P95
Q.	CONGENITAL MALFORMATIONS, DEFORMITIES AND CHROMOSOMAL ABNORMALITIES	Q00-Q99
	Spina bifida	Q05
	Other congenital malformations of the nervous system	Q00-Q04, Q06-Q07
	Congenital malformations of the circulatory system	Q20-Q28
	Cleft palate and cleft lip	Q35-Q37
	Absence, atresia and stenosis of small intestine	Q41
	Other congenital malformations of the digestive system	Q38-Q40, Q42-Q45
	Undescended testicle	Q53
	Other malformations of the genito-urinary system	Q50-Q52, Q54-Q64
	Congenital deformities of hip	Q65
	Congenital deformities of feet	Q66
	Other congenital malformations and deformations of the musculoskeletal system	Q67-Q79
	Other congenital malformations	Q80-Q89
	Chromosomal abnormalities not elsewhere classified	Q90-Q99
R.	SYMPTOMS, SIGNS AND ABNROMAL CLINICAL AND LABORATORY FINDINGS NOT ELSEWHERE CLASSIFIED	R00-R99
	Abdominal and pelvic pain	R10
	Fever of unknown origin	R50
	Senility, unspecified	R54
	Other symptoms, signs and abnormal clinical and laboratory findings not elsewhere classified	R00-R09, R11-R49 R51-R53, R55-R99
S.	INJURY, POISONING AND CERTAIN OTHER CONSEQUENCES OF EXTERNAL CAUSES	S00-T98
	Fractures of specified and multiple body regions	S02, S12, S22, S32, S42, S52, S62, S72, S82, S92, T02, T07, T08
	Fracture of skull and facial bones	S02
	Fracture of neck, thorax and pelvis	S12, S22, S32, T07
	Fracture of femur	S72

- Other fractures of limb	S42, S52, S62, S82 S92, T08
Dislocations, sprains and strains of specified and multiple body regions	S03, S13, S23, S33, S43, S53, S63, S73, S83, S93, T03
Injury of eye and orbit	S05
Intracranial injury	S06
Injury of internal organs	S26-S27, S36-S38
Crushing injuries and traumatic amputations of specified and multiple body regions	S07-S08, S17-S18, S28 S38, S47-S48, S57-S58 S67-S68, S77-S78, S87-S88 S97-S98, T04, T05
Superficial injury, open wound and other and unspecified injuries of specified and multiple body regions	S00-S01, S09, S10-S11, S14-S16, S19, S20-S21, S24-S25, S29, S30-S31 S33-S35, S39, S40-S41, S44-S46, S49, S50-S51, S54-S56, S59, S60-S61, S64-S66, S69, S70-S71, S74-S76, S79, S80-S81, S84-S86, S89, S90-S91, S94-S96, S99, T00-T01, T06, T09-T11
Effects of foreign body entering through natural orifice	T12-T19
Burns and corrosions	T20-T32
Poisoning by drugs and biological substances	T36-T50
Toxic effects of substances chiefly nonmedicinal as to source	T51-T65
Maltreatment syndromes	T74
Other and unspecified effects of external causes	T66-T73, T75-T78
Early complication of trauma and complication of surgical and medical care of injuries and poisonings	T79, T80-T88
Other consequences of external causes	T90-T98
Z. FACTORS INFLUENCING HEALTH STATUS AND CONTACT WITH HEALTH SERVICES	Z00-Z98
Persons encountering health services for examination and investigation	Z00-Z13
Asymptomatic human immunodeficiency virus [HIV] seropositive status	Z21
Other persons with potential health hazards related to communicable disease	Z20, Z22-Z29
Contraceptive management	Z30
Supervision of pregnancy and antenatal screening	Z34-Z36
Liveborn infants according to type of birth	Z38
Postpartum care and examination	Z39
Persons encountering health services for specific procedures and aftercare	Z40-Z53
Persons encountering health services for other reasons	Z31-Z33, Z37, Z55-Z98

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.10

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

MORPHOLOGY OF NEOPLASMS

The World Health Organization has published a revised adaptation of the International Classification of Diseases for Oncology (ICD-O), Second Edition. It contains a coded nomenclature for the morphology of neoplasms, introducing some new morphologic entities that have come into existence since the 1976 ICD-O was published. The preferred morphologies (first term) are reproduced here for those who wish to use them in conjunction with Chapter II of the International Classification of Diseases.

The morphology code numbers consist of six digits: the first four identify the histologic type of the neoplasm, the fifth indicates its behaviour and the sixth indicates grading and differentiation and for lymphomas or leukaemias the presence of T or B cells.

The one digit behaviour code is as follows:

/0 Benign

/1 Uncertain whether benign or malignant
Borderline malignancy (except cystadenomas in the histology range 844-849)
Low malignant potential (except cystadenomas in the histology range 844-849)

/2 Carcinoma in situ
Intraepithelial
Noninfiltrating
Noninvasive

/3 Malignant, primary site

/6 Malignant, metastatic site
Malignant, secondary site

/9 Malignant, uncertain whether primary or metastatic site

The one digit grading or differentiation code for all malignant neoplasms follows. The presence of T or B cells for leukaemias and lymphomas is also identified.

1	Grade I	Well differentiated Differentiated, NOS	
2	Grade II	Moderately differentiated Moderately well differentiated Intermediate differentiation	
3	Grade III	Poorly differentiated	
4	Grade IV	Undifferentiated Anaplastic	
5	T-cell	)	
6	B-cell Pre-B B-precursor	)	For lymphomas and leukaemias
7	Null cell Non T-non B	)	For leukaemias
9	Grade or differentiation not determined, not stated or not applicable Cell type not determined, not stated or not applicable		

In the nomenclature below the morphology code numbers include the usual behaviour co appropriate to the histological type of neoplasm, but this behaviour code can be changed other reported information makes this necessary. This is the basis of the "matrix" syst as reported in the introduction of ICD-O. For example, "chordoma (M9370/3)" is assumed be malignant. If the term "benign chordoma" is diagnosed, this should be coded M9370/0. Similarly "papillary adenocarcinoma (M8260/3)" described as "in situ" should be coded M8260/2.

The following table shows the correspondence between the behaviour code and the different sections of Chapter II.

Morphology Code Behaviour	ICD Chapter II	
/0	D10-D36	Benign neoplasms
/1	D37-D47	Neoplasms of uncertain and unknown behaviour
/2	D00-D09	In situ neoplasms
/3	C00-C76 C80-C96	Malignant neoplasms, stated or presumed to be primary
/6	C77-C79	Malignant neoplasms, stated or presumed to be secondary

The ICD-O behaviour digit /9 is not applicable in an ICD context, since all malignant neoplasms are presumed to be either primary (/3) or secondary (/6).

Only the first-listed term of the complete ICD-O morphology nomenclature appears against each code number in the list below. The ICD Alphabetical Index (Volume 2), however, includes all the ICD-O synonyms as well as a number of other morphological names still likely to be encountered on medical records but omitted from ICD-O as outdated or otherwise undesirable.

A coding difficulty sometimes arises when a morphological diagnosis contains two qualifying adjectives that have different four digit histology code numbers. An example is "transitional cell epidermoid carcinoma". "Transitional cell carcinoma, NOS" is M8120/3 and "epidermoid carcinoma, NOS" is M8070/3. In such circumstances, the higher code number (M8120/3 in this example) should be used, as it is usually more specific. For other information about the coding of morphology see pages _____.

M800	NEOPLASMS, NOS
M8000/0	Neoplasm, benign
M8000/1	Neoplasm, uncertain whether benign or malignant
M8000/3	Neoplasm, malignant
M8000/6	Neoplasm, metastatic
M8000/9	Neoplasm, malignant, uncertain whether primary or metastatic
M8001/0	Tumor cells, benign
M8001/1	Tumor cells, uncertain whether benign or malignant
M8001/3	Tumor cells, malignant
M8002/3	Malignant tumor, small cell type
M8003/3	Malignant tumor, giant cell type
M8004/3	Malignant tumor, fusiform cell type

M801-M804 EPITHELIAL NEOPLASMS, NOS

M8010/0	Epithelial tumor, benign
M8010/2	Carcinoma in situ, NOS
M8010/3	Carcinoma, NOS
M8010/6	Carcinoma, metastatic, NOS
M8010/9	Carcinomatosis
M8011/0	Epithelioma, benign
M8011/3	Epithelioma, malignant
M8012/3	Large cell carcinoma, NOS
M8020/3	Carcinoma, undifferentiated, NOS
M8021/3	Carcinoma, anaplastic, NOS
M8022/3	Pleomorphic carcinoma
M8030/3	Giant cell and spindle cell carcinoma
M8031/3	Giant cell carcinoma
M8032/3	Spindle cell carcinoma
M8033/3	Pseudosarcomatous carcinoma
M8034/3	Polygonal cell carcinoma
M8040/1	Tumorlet
M8041/3	Small cell carcinoma, NOS

M8042/3 Oat cell carcinoma
M8043/3 Small cell carcinoma, fusiform cell
M8044/3 Small cell carcinoma, intermediate cell
M8045/3 Small cell-large cell carcinoma

M805-M808 SQUAMOUS CELL NEOPLASMS

M8050/0 Papilloma, NOS (except Papilloma of urinary bladder M-8120/1)
M8050/2 Papillary carcinoma in situ
M8050/3 Papillary carcinoma, NOS
M8051/0 Verrucous papilloma
M8051/3 Verrucous carcinoma, NOS
M8052/0 Squamous cell papilloma
M8052/3 Papillary squamous cell carcinoma
M8053/0 Inverted papilloma
M8060/0 Papillomatosis, NOS
M8070/2 Squamous cell carcinoma in situ, NOS
M8070/3 Squamous cell carcinoma, NOS
M8070/6 Squamous cell carcinoma, metastatic, NOS
M8071/3 Squamous cell carcinoma, keratinizing, NOS
M8072/3 Squamous cell carcinoma, large cell, non-keratinizing
M8073/3 Squamous cell carcinoma, small cell, non-keratinizing
M8074/3 Squamous cell carcinoma, spindle cell
M8075/3 Adenoid squamous cell carcinoma
M8076/2 Squamous cell carcinoma in situ with questionable stromal invasion
M8076/3 Squamous cell carcinoma, micro-invasive
M8080/2 Queyrat's erythroplasia
M8081/2 Bowen's disease
M8082/3 Lymphoepithelial carcinoma

M809-M811 BASAL CELL NEOPLASMS

M8090/1 Basal cell tumor
M8090/3 Basal cell carcinoma, NOS
M8091/3 Multicentric basal cell carcinoma
M8092/3 Basal cell carcinoma, morphea
M8093/3 Basal cell carcinoma, fibroepithelial
M8094/3 Basosquamous carcinoma
M8095/3 Metatypical carcinoma
M8096/0 Intraepidermal epithelioma of Jadassohn
M8100/0 Trichoepithelioma
M8101/0 Trichofolliculoma
M8102/0 Tricholemmoma
M8110/0 Pilomatrixoma, NOS
M8110/3 Pilomatrix carcinoma

M812-M813 TRANSITIONAL CELL PAPILLOMAS AND CARCINOMAS

M8120/0 Transitional cell papilloma, NOS
M8120/1 Urothelial papilloma
M8120/2 Transitional cell carcinoma in situ
M8120/3 Transitional cell carcinoma, NOS
M8121/0 Schneiderian papilloma
M8121/1 Transitional cell papilloma, inverted

M8121/3 Schneiderian carcinoma
M8122/3 Transitional cell carcinoma, spindle cell
M8123/3 Basaloid carcinoma
M8124/3 Cloacogenic carcinoma
M8130/3 Papillary transitional cell carcinoma

M814-M838 ADENOMAS AND ADENOCARCINOMAS

M8140/0 Adenoma, NOS
M8140/1 Bronchial adenoma, NOS
M8140/2 Adenocarcinoma in situ
M8140/3 Adenocarcinoma, NOS
M8140/6 Adenocarcinoma, metastatic, NOS
M8141/3 Scirrhous adenocarcinoma
M8142/3 Linitis plastica
M8143/3 Superficial spreading adenocarcinoma
M8144/3 Adenocarcinoma, intestinal type
M8145/3 Carcinoma, diffuse type
M8146/0 Monomorphic adenoma
M8147/0 Basal cell adenoma
M8147/3 Basal cell adenocarcinoma
M8150/0 Islet cell adenoma
M8150/3 Islet cell carcinoma
M8151/0 Insulinoma, NOS
M8151/3 Insulinoma, malignant
M8152/0 Glucagonoma, NOS
M8152/3 Glucagonoma, malignant
M8153/1 Gastrinoma, NOS
M8153/3 Gastrinoma, malignant
M8154/3 Mixed islet cell and exocrine adenocarcinoma
M8155/3 Vipoma
M8160/0 Bile duct adenoma
M8160/3 Cholangiocarcinoma
M8161/0 Bile duct cystadenoma
M8161/3 Bile duct cystadenocarcinoma
M8162/3 Klatskin's tumor
M8170/0 Liver cell adenoma
M8170/3 Hepatocellular carcinoma, NOS
M8171/3 Hepatocellular carcinoma, fibrolamellar
M8180/3 Combined hepatocellular carcinoma and cholangiocarcinoma
M8190/0 Trabecular adenoma
M8190/3 Trabecular adenocarcinoma
M8191/0 Embryonal adenoma
M8200/0 Eccrine dermal cylindroma
M8200/3 Adenoid cystic carcinoma
M8201/3 Cribriform carcinoma
M8202/0 Microcystic adenoma
M8210/0 Adenomatous polyp, NOS
M8210/2 Adenocarcinoma in situ in adenomatous polyp
M8210/3 Adenocarcinoma in adenomatous polyp
M8211/0 Tubular adenoma, NOS
M8211/3 Tubular adenocarcinoma
M8220/0 Adenomatous polyposis coli
M8220/3 Adenocarcinoma in adenomatous polyposis coli
M8221/0 Multiple adenomatous polyps
M8221/3 Adenocarcinoma in multiple adenomatous polyps
M8230/3 Solid carcinoma, NOS

M8231/3 Carcinoma simplex
M8240/1 Carcinoid tumor, NOS, of appendix
M8240/3 Carcinoid tumor, NOS (except of Appendix M-8240/1)
M8241/1 Carcinoid tumor, argentaffin, NOS
M8241/3 Carcinoid tumor, argentaffin, malignant
M8243/3 Goblet cell carcinoid
M8244/3 Composite carcinoid
M8245/3 Adenocarcinoid tumor
M8246/3 Neuroendocrine carcinoma
M8247/3 Merkel cell carcinoma
M8248/1 Apudoma
M8250/1 Pulmonary adenomatosis
M8250/3 Bronchiolo-alveolar adenocarcinoma
M8251/0 Alveolar adenoma
M8251/3 Alveolar adenocarcinoma
M8260/0 Papillary adenoma, NOS
M8260/3 Papillary adenocarcinoma, NOS
M8261/1 Villous adenoma, NOS
M8261/2 Adenocarcinoma in situ in villous adenoma
M8261/3 Adenocarcinoma in villous adenoma
M8262/3 Villous adenocarcinoma
M8263/0 Tubulovillous adenoma, NOS
M8263/2 Adenocarcinoma in situ in tubulovillous adenoma
M8263/3 Adenocarcinoma in tubulovillous adenoma
M8270/0 Chromophobe adenoma
M8270/3 Chromophobe carcinoma
M8271/0 Prolactinoma
M8280/0 Acidophil adenoma
M8280/3 Acidophil carcinoma
M8281/0 Mixed acidophil-basophil adenoma
M8281/3 Mixed acidophil-basophil carcinoma
M8290/0 Oxyphilic adenoma
M8290/3 Oxyphilic adenocarcinoma
M8300/0 Basophil adenoma
M8300/3 Basophil carcinoma
M8310/0 Clear cell adenoma
M8310/3 Clear cell adenocarcinoma, NOS
M8311/1 Hypernephroid tumor
M8312/3 Renal cell carcinoma
M8313/0 Clear cell adenofibroma
M8314/3 Lipid-rich carcinoma
M8315/3 Glycogen-rich carcinoma
M8320/3 Granular cell carcinoma
M8321/0 Chief cell adenoma
M8322/0 Water-clear cell adenoma
M8322/3 Water-clear cell adenocarcinoma
M8323/0 Mixed cell adenoma
M8323/3 Mixed cell adenocarcinoma
M8324/0 Lipoadenoma
M8330/0 Follicular adenoma
M8330/3 Follicular adenocarcinoma, NOS
M8331/3 Follicular adenocarcinoma, well differentiated
M8332/3 Follicular adenocarcinoma, trabecular
M8333/0 Microfollicular adenoma
M8334/0 Macrofollicular adenoma
M8340/3 Papillary carcinoma, follicular variant
M8350/3 Nonencapsulated sclerosing carcinoma
M8360/1 Multiple endocrine adenomas

M8361/1 Juxtaglomerular tumor
M8370/0 Adrenal cortical adenoma, NOS
M8370/3 Adrenal cortical carcinoma
M8371/0 Adrenal cortical adenoma, compact cell
M8372/0 Adrenal cortical adenoma, heavily pigmented variant
M8373/0 Adrenal cortical adenoma, clear cell
M8374/0 Adrenal cortical adenoma, glomerulosa cell
M8375/0 Adrenal cortical adenoma, mixed cell
M8380/0 Endometrioid adenoma, NOS
M8380/1 Endometrioid adenoma, borderline malignancy
M8380/3 Endometrioid carcinoma
M8381/0 Endometrioid adenofibroma, NOS
M8381/1 Endometrioid adenofibroma, borderline malignancy
M8381/3 Endometrioid adenofibroma, malignant

M839-M842 ADNEXAL AND SKIN APPENDAGE NEOPLASMS

M8390/0 Skin appendage adenoma
M8390/3 Skin appendage carcinoma
M8400/0 Sweat gland adenoma
M8400/1 Sweat gland tumor, NOS
M8400/3 Sweat gland adenocarcinoma
M8401/0 Apocrine adenoma
M8401/3 Apocrine adenocarcinoma
M8402/0 Eccrine acrospiroma
M8403/0 Eccrine spiradenoma
M8404/0 Hidrocystoma
M8405/0 Papillary hidradenoma
M8406/0 Papillary syringadenoma
M8407/0 Syringoma, NOS
M8408/0 Eccrine papillary adenoma
M8410/0 Sebaceous adenoma
M8410/3 Sebaceous adenocarcinoma
M8420/0 Ceruminous adenoma
M8420/3 Ceruminous adenocarcinoma

M843 MUCOEPIDERMOID NEOPLASMS

M8430/1 Mucoepidermoid tumor
M8430/3 Mucoepidermoid carcinoma

M844-M849 CYSTIC, MUCINOUS AND SEROUS NEOPLASMS

M8440/0 Cystadenoma, NOS
M8440/3 Cystadenocarcinoma, NOS
M8441/0 Serous cystadenoma, NOS
M8441/3 Serous cystadenocarcinoma, NOS
M8442/3 Serous cystadenoma, borderline malignancy
M8450/0 Papillary cystadenoma, NOS
M8450/3 Papillary cystadenocarcinoma, NOS
M8451/3 Papillary cystadenoma, borderline malignancy
M8452/1 Papillary cystic tumor
M8460/0 Papillary serous cystadenoma, NOS
M8460/3 Papillary serous cystadenocarcinoma
M8461/0 Serous surface papilloma

M8461/3 Serous surface papillary carcinoma
M8462/3 Papillary serous cystadenoma, borderline malignancy
M8470/0 Mucinous cystadenoma, NOS
M8470/3 Mucinous cystadenocarcinoma, NOS
M8471/0 Papillary mucinous cystadenoma, NOS
M8471/3 Papillary mucinous cystadenocarcinoma
M8472/3 Mucinous cystadenoma, borderline malignancy
M8473/3 Papillary mucinous cystadenoma, borderline malignancy

M8480/0 Mucinous adenoma
M8480/3 Mucinous adenocarcinoma
M8480/6 Pseudomyxoma peritonei
M8481/3 Mucin-producing adenocarcinoma
M8490/3 Signet ring cell carcinoma
M8490/6 Metastatic signet ring cell carcinoma

M850-M854 DUCTAL, LOBULAR AND MEDULLARY NEOPLASMS

M8500/2 Intraductal carcinoma, non-infiltrating, NOS
M8500/3 Infiltrating duct carcinoma
M8501/2 Comedocarcinoma, non-infiltrating
M8501/3 Comedocarcinoma, NOS
M8502/3 Juvenile carcinoma of breast
M8503/0 Intraductal papilloma
M8503/2 Non-infiltrating intraductal papillary adenocarcinoma
M8503/3 Intraductal papillary adenocarcinoma with invasion
M8504/0 Intracystic papillary adenoma
M8504/2 Non-infiltrating intracystic carcinoma
M8504/3 Intracystic carcinoma, NOS
M8505/0 Intraductal papillomatosis, NOS
M8506/0 Adenoma of nipple
M8510/3 Medullary carcinoma, NOS
M8511/3 Medullary carcinoma with amyloid stroma
M8512/3 Medullary carcinoma with lymphoid stroma
M8520/2 Lobular carcinoma in situ
M8520/3 Lobular carcinoma, NOS
M8521/3 Infiltrating ductular carcinoma
M8522/2 Intraductal carcinoma and lobular carcinoma in situ
M8522/3 Infiltrating duct and lobular carcinoma
M8530/3 Inflammatory carcinoma
M8540/3 Paget's disease, mammary
M8541/3 Paget's disease and infiltrating duct carcinoma of breast
M8542/3 Paget's disease, extramammary (except Paget's disease of bone)
M8543/3 Paget's disease and intraductal carcinoma of breast

M855 ACINAR CELL NEOPLASMS

M8550/0 Acinar cell adenoma
M8550/1 Acinar cell tumor
M8550/3 Acinar cell carcinoma

M8560/3 Adenosquamous carcinoma
M8561/0 Adenolymphoma
M8562/3 Epithelial-myoepithelial carcinoma
M8570/3 Adenocarcinoma with squamous metaplasia
M8571/3 Adenocarcinoma with cartilaginous and osseous metaplasia
M8572/3 Adenocarcinoma with spindle cell metaplasia
M8573/3 Adenocarcinoma with apocrine metaplasia
M8580/0 Thymoma, benign
M8580/3 Thymoma, malignant

M859-M867 SPECIALIZED GONADAL NEOPLASMS

M8590/1 Sex cord-stromal tumor
M8600/0 Thecoma, NOS
M8600/3 Thecoma, malignant
M8601/0 Thecoma, luteinized
M8602/0 Sclerosing stromal tumor
M8610/0 Luteoma, NOS
M8620/1 Granulosa cell tumor, NOS
M8620/3 Granulosa cell tumor, malignant
M8621/1 Granulosa cell-theca cell tumor
M8622/1 Juvenile granulosa cell tumor
M8623/1 Sex cord tumor with annular tubules
M8630/0 Androblastoma, benign
M8630/1 Androblastoma, NOS
M8630/3 Androblastoma, malignant
M8631/0 Sertoli-Leydig cell tumor
M8632/1 Gynandroblastoma
M8640/0 Sertoli cell tumor, NOS
M8640/3 Sertoli cell carcinoma
M8641/0 Sertoli cell tumor with lipid storage
M8650/0 Leydig cell tumor, benign
M8650/1 Leydig cell tumor, NOS
M8650/3 Leydig cell tumor, malignant
M8660/0 Hilus cell tumor
M8670/0 Lipid cell tumor of ovary
M8671/0 Adrenal rest tumor

M868-M871 PARAGANGLIOMAS AND GLOMUS TUMORS

M8680/1 Paraganglioma, NOS
M8680/3 Paraganglioma, malignant
M8681/1 Sympathetic paraganglioma
M8682/1 Parasympathetic paraganglioma
M8683/0 Gangliocytic paraganglioma
M8690/1 Glomus jugulare tumor
M8691/1 Aortic body tumor
M8692/1 Carotid body tumor
M8693/1 Extra-adrenal paraganglioma, NOS
M8693/3 Extra-adrenal paraganglioma, malignant
M8700/0 Pheochromocytoma, NOS
M8700/3 Pheochromocytoma, malignant
M8710/3 Glomangiosarcoma
M8711/0 Glomus tumor
M8712/0 Glomangioma

M872-M879 NEVI AND MELANOMAS

M8720/0	Pigmented nevus, NOS
M8720/3	Malignant melanoma, NOS
M8721/3	Nodular melanoma
M8722/0	Balloon cell nevus
M8722/3	Balloon cell melanoma
M8723/0	Halo nevus
M8723/3	Malignant melanoma, regressing
M8724/0	Fibrous papule of nose
M8725/0	Neuronevus
M8726/0	Magnocellular nevus
M8727/0	Dysplastic nevus
M8730/0	Non-pigmented nevus
M8730/3	Amelanotic melanoma
M8740/0	Junctional nevus
M8740/3	Malignant melanoma in junctional nevus
M8741/2	Precancerous melanosis, NOS
M8741/3	Malignant melanoma in precancerous melanosis
M8742/2	Hutchinson's melanotic freckle
M8742/3	Malignant melanoma in Hutchinson's melanotic freckle
M8743/3	Superficial spreading melanoma
M8744/3	Acral lentiginous melanoma, malignant
M8745/3	Desmoplastic melanoma, malignant
M8750/0	Intradermal nevus
M8760/0	Compound nevus
M8761/1	Giant pigmented nevus
M8761/3	Malignant melanoma in giant pigmented nevus
M8770/0	Epithelioid and spindle cell nevus
M8771/0	Epithelioid cell nevus
M8771/3	Epithelioid cell melanoma
M8772/0	Spindle cell nevus
M8772/3	Spindle cell melanoma, NOS
M8773/3	Spindle cell melanoma, type A
M8774/3	Spindle cell melanoma, type B
M8775/3	Mixed epithelioid and spindle cell melanoma
M8780/0	Blue nevus, NOS
M8780/3	Blue nevus, malignant
M8790/0	Cellular blue nevus

M880 SOFT TISSUE TUMORS AND SARCOMAS, NOS

M8800/0	Soft tissue tumor, benign
M8800/3	Sarcoma, NOS
M8800/9	Sarcomatosis, NOS
M8801/3	Spindle cell sarcoma
M8802/3	Giant cell sarcoma (except of Bone M-9250/3)
M8803/3	Small cell sarcoma
M8804/3	Epithelioid sarcoma

M8810/0 Fibroma, NOS
M8810/3 Fibrosarcoma, NOS
M8811/0 Fibromyxoma
M8811/3 Fibromyxosarcoma
M8812/0 Periosteal fibroma
M8812/3 Periosteal fibrosarcoma
M8813/0 Fascial fibroma
M8813/3 Fascial fibrosarcoma
M8814/3 Infantile fibrosarcoma
M8820/0 Elastofibroma
M8821/1 Aggressive fibromatosis
M8822/1 Abdominal fibromatosis
M8823/1 Desmoplastic fibroma
M8824/1 Myofibromatosis
M8830/0 Fibrous histiocytoma, NOS
M8830/1 Atypical fibrous histiocytoma
M8830/3 Fibrous histiocytoma, malignant
M8832/0 Dermatofibroma, NOS
M8832/3 Dermatofibrosarcoma, NOS
M8833/3 Pigmented dermatofibrosarcoma protuberans

M884 MYXOMATOUS NEOPLASMS

M8840/0 Myxoma, NOS
M8840/3 Myxosarcoma
M8841/1 Angiomyxoma

M885-M888 LIPOMATOUS NEOPLASMS

M8850/0 Lipoma, NOS
M8850/3 Liposarcoma, NOS
M8851/0 Fibrolipoma
M8851/3 Liposarcoma, well differentiated
M8852/0 Fibromyxolipoma
M8852/3 Myxoid liposarcoma
M8853/3 Round cell liposarcoma
M8854/0 Pleomorphic lipoma
M8854/3 Pleomorphic liposarcoma
M8855/3 Mixed liposarcoma
M8856/0 Intramuscular lipoma
M8857/0 Spindle cell lipoma
M8858/3 Dedifferentiated liposarcoma
M8860/0 Angiomyolipoma
M8861/0 Angiolipoma, NOS
M8870/0 Myelolipoma
M8880/0 Hibernoma
M8881/0 Lipoblastomatosis

M8890/0 Leiomyoma, NOS
M8890/1 Leiomyomatosis , NOS
M8890/3 Leiomyosarcoma, NOS
M8891/1 Epithelioid leiomyoma
M8891/3 Epithelioid leiomyosarcoma
M8892/1 Cellular leiomyoma
M8893/0 Bizarre leiomyoma
M8894/0 Angiomyoma
M8894/3 Angiomyosarcoma
M8895/0 Myoma
M8895/3 Myosarcoma
M8896/3 Myxoid leiomyosarcoma
M8897/1 Smooth muscle tumor, NOS
M8900/0 Rhabdomyoma, NOS
M8900/3 Rhabdomyosarcoma, NOS
M8901/3 Pleomorphic rhabdomyosarcoma
M8902/3 Mixed type rhabdomyosarcoma
M8903/0 Fetal rhabdomyoma
M8904/0 Adult rhabdomyoma
M8910/3 Embryonal rhabdomyosarcoma
M8920/3 Alveolar rhabdomyosarcoma

M893-M899 COMPLEX MIXED AND STROMAL NEOPLASMS

M8930/0 Endometrial stromal nodule
M8930/3 Endometrial stromal sarcoma
M8931/1 Endolymphatic stromal myosis
M8932/0 Adenomyoma
M8933/3 Adenosarcoma
M8940/0 Pleomorphic adenoma
M8940/3 Mixed tumor, malignant, NOS
M8941/3 Carcinoma in pleomorphic adenoma
M8950/3 Mullerian mixed tumor
M8951/3 Mesodermal mixed tumor
M8960/1 Mesoblastic nephroma
M8960/3 Nephroblastoma, NOS
M8963/3 Rhabdoid sarcoma
M8964/3 Clear cell sarcoma of kidney
M8970/3 Hepatoblastoma
M8971/3 Pancreatoblastoma
M8972/3 Pulmonary blastoma
M8980/3 Carcinosarcoma, NOS
M8981/3 Carcinosarcoma, embryonal
M8982/0 Myoepithelioma
M8990/0 Mesenchymoma, benign
M8990/1 Mesenchymoma, NOS
M8990/3 Mesenchymoma, malignant
M8991/3 Embryonal sarcoma

M900-M903 FIBROEPITHELIAL NEOPLASMS

M9000/1 Brenner tumor, borderline malignancy
M9000/3 Brenner tumor, malignant
M9010/0 Fibroadenoma, NOS
M9011/0 Intracanalicular fibroadenoma
M9012/0 Pericanalicular fibroadenoma
M9013/0 Adenofibroma, NOS
M9014/0 Serous adenofibroma
M9015/0 Mucinous adenofibroma
M9016/0 Giant fibroadenoma
M9020/0 Phyllodes tumor, benign
M9020/1 Phyllodes tumor, NOS
M9020/3 Phyllodes tumor, malignant
M9030/0 Juvenile fibroadenoma

M904 SYNOVIAL-LIKE NEOPLASMS

M9040/0 Synovioma, benign
M9040/3 Synovial sarcoma, NOS
M9041/3 Synovial sarcoma, spindle cell
M9042/3 Synovial sarcoma, epithelioid cell
M9043/3 Synovial sarcoma, biphasic
M9044/3 Clear cell sarcoma (except of Kidney M-8964/3)

M905 MESOTHELIAL NEOPLASMS

M9050/0 Mesothelioma, benign
M9050/3 Mesothelioma, malignant
M9051/0 Fibrous mesothelioma, benign
M9051/3 Fibrous mesothelioma, malignant
M9052/0 Epithelioid mesothelioma, benign
M9052/3 Epithelioid mesothelioma, malignant
M9053/0 Mesothelioma, biphasic, benign
M9053/3 Mesothelioma, biphasic, malignant
M9054/0 Adenomatoid tumor, NOS
M9055/1 Cystic mesothelioma

M906-M909 GERM CELL NEOPLASMS

M9060/3 Dysgerminoma
M9061/3 Seminoma, NOS
M9062/3 Seminoma, anaplastic
M9063/3 Spermatocytic seminoma
M9064/3 Germinoma
M9070/3 Embryonal carcinoma, NOS
M9071/3 Endodermal sinus tumor
M9072/3 Polyembryoma
M9073/1 Gonadoblastoma
M9080/0 Teratoma, benign
M9080/1 Teratoma, NOS

M9082/3 Malignant teratoma, undifferentiated
M9083/3 Malignant teratoma, intermediate
M9084/0 Dermoid cyst
M9084/3 Teratoma with malignant transformation
M9085/3 Mixed germ cell tumor
M9090/0 Struma ovarii, NOS
M9090/3 Struma ovarii, malignant
M9091/1 Strumal carcinoid

M910 TROPHOBLASTIC NEOPLASMS

M9100/0 Hydatidiform mole, NOS
M9100/1 Invasive hydatidiform mole
M9100/3 Choriocarcinoma
M9101/3 Choriocarcinoma combined with other germ cell elements
M9102/3 Malignant teratoma, trophoblastic
M9103/0 Partial hydatidiform mole
M9104/3 Placental site trophoblastic tumor

M911 MESONEPHROMAS

M9110/0 Mesonephroma, benign
M9110/1 Mesonephric tumor
M9110/3 Mesonephroma, malignant

M912-M916 BLOOD VESSEL TUMORS

M9120/0 Hemangioma, NOS
M9120/3 Hemangiosarcoma
M9121/0 Cavernous hemangioma
M9122/0 Venous hemangioma
M9123/0 Racemose hemangioma
M9124/3 Kupffer cell sarcoma
M9125/0 Epithelioid hemangioma
M9126/0 Histiocytoid hemangioma
M9130/0 Hemangioendothelioma, benign
M9130/1 Hemangioendothelioma, NOS
M9130/3 Hemangioendothelioma, malignant
M9131/0 Capillary hemangioma
M9132/0 Intramuscular hemangioma
M9133/1 Epithelioid hemangioendothelioma, NOS
M9133/3 Epithelioid hemangioendothelioma, malignant
M9134/1 Intravascular bronchial alveolar tumor
M9140/3 Kaposi's sarcoma
M9141/0 Angiokeratoma
M9142/0 Verrucous keratotic hemangioma
M9150/0 Hemangiopericytoma, benign
M9150/1 Hemangiopericytoma, NOS
M9150/3 Hemangiopericytoma, malignant

M917 LYMPHATIC VESSEL TUMORS

M9170/0 Lymphangioma, NOS
M9170/3 Lymphangiosarcoma
M9171/0 Capillary lymphangioma
M9172/0 Cavernous lymphangioma
M9173/0 Cystic lymphangioma
M9174/0 Lymphangiomyoma
M9174/1 Lymphangiomyomatosis
M9175/0 Hemolymphangioma

M918-M924 OSSEOUS AND CHONDROMATOUS NEOPLASMS

M9180/0 Osteoma, NOS
M9180/3 Osteosarcoma, NOS
M9181/3 Chondroblastic osteosarcoma
M9182/3 Fibroblastic osteosarcoma
M9183/3 Telangiectatic osteosarcoma
M9184/3 Osteosarcoma in Paget's disease of bone
M9185/3 Small cell osteosarcoma
M9190/3 Juxtacortical osteosarcoma
M9191/0 Osteoid osteoma, NOS
M9200/0 Osteoblastoma, NOS
M9200/1 Aggressive osteoblastoma
M9210/0 Osteochondroma
M9210/1 Osteochondromatosis, NOS
M9220/0 Chondroma, NOS
M9220/1 Chondromatosis, NOS
M9220/3 Chondrosarcoma, NOS
M9221/0 Juxtacortical chondroma
M9221/3 Juxtacortical chondrosarcoma
M9230/0 Chondroblastoma, NOS
M9230/3 Chondroblastoma, malignant
M9231/3 Myxoid chondrosarcoma
M9240/3 Mesenchymal chondrosarcoma
M9241/0 Chondromyxoid fibroma

M925 GIANT CELL TUMORS

M9250/1 Giant cell tumor of bone, NOS
M9250/3 Giant cell tumor of bone, malignant
M9251/1 Giant cell tumor of soft parts, NOS
M9251/3 Malignant giant cell tumor of soft parts

M926 MISCELLANEOUS BONE TUMORS

M9260/3 Ewing's sarcoma

M927-M934 ODONTOGENIC TUMORS

M9270/0 Odontogenic tumor, benign
M9270/1 Odontogenic tumor, NOS
M9270/3 Odontogenic tumor, malignant
M9271/0 Dentinoma
M9272/0 Cementoma, NOS
M9273/0 Cementoblastoma, benign
M9274/0 Cementifying fibroma
M9275/0 Gigantiform cementoma
M9280/0 Odontoma, NOS
M9281/0 Compound odontoma
M9282/0 Complex odontoma
M9290/0 Ameloblastic fibro-odontoma
M9290/3 Ameloblastic odontosarcoma
M9300/0 Adenomatoid odontogenic tumor
M9301/0 Calcifying odontogenic cyst
M9302/0 Odontogenic ghost cell tumor
M9310/0 Ameloblastoma, NOS
M9310/3 Ameloblastoma, malignant
M9311/0 Odontoameloblastoma
M9312/0 Squamous odontogenic tumor
M9320/0 Odontogenic myxoma
M9321/0 Central odontogenic fibroma
M9322/0 Peripheral odontogenic fibroma
M9330/0 Ameloblastic fibroma
M9330/3 Ameloblastic fibrosarcoma
M9340/0 Calcifying epithelial odontogenic tumor

M935-M937 MISCELLANEOUS TUMORS

M9350/1 Craniopharyngioma
M9360/1 Pinealoma
M9361/1 Pineocytoma
M9362/3 Pineoblastoma
M9363/0 Melanotic neuroectodermal tumor
M9364/3 Peripheral neuroectodermal tumor
M9370/3 Chordoma

M938-M948 GLIOMAS

M9380/3 Glioma, malignant
M9381/3 Gliomatosis cerebri
M9382/3 Mixed glioma
M9383/1 Subependymal glioma
M9384/1 Subependymal giant cell astrocytoma
M9390/0 Choroid plexus papilloma, NOS
M9390/3 Choroid plexus papilloma, malignant

M9391/3 Ependymoma, NOS
M9392/3 Ependymoma, anaplastic
M9393/1 Papillary ependymoma
M9394/1 Myxopapillary ependymoma
M9400/3 Astrocytoma, NOS
M9401/3 Astrocytoma, anaplastic
M9410/3 Protoplasmic astrocytoma
M9411/3 Gemistocytic astrocytoma
M9420/3 Fibrillary astrocytoma
M9421/3 Pilocytic astrocytoma
M9422/3 Spongioblastoma, NOS
M9423/3 Spongioblastoma polare
M9424/3 Pleomorphic xanthoastrocytoma
M9430/3 Astroblastoma
M9440/3 Glioblastoma, NOS
M9441/3 Giant cell glioblastoma
M9442/3 Gliosarcoma
M9443/3 Primitive polar spongioblastoma
M9450/3 Oligodendroglioma, NOS
M9451/3 Oligodendroglioma, anaplastic
M9460/3 Oligodendroblastoma
M9470/3 Medulloblastoma, NOS
M9471/3 Desmoplastic medulloblastoma
M9472/3 Medullomyoblastoma
M9473/3 Primitive neuroectodermal tumor
M9480/3 Cerebellar sarcoma, NOS
M9481/3 Monstrocellular sarcoma

M949-M952 NEUROEPITHELIOMATOUS NEOPLASMS

M9490/0 Ganglioneuroma
M9490/3 Ganglioneuroblastoma
M9491/0 Ganglioneuromatosis
M9500/3 Neuroblastoma, NOS
M9501/3 Medulloepithelioma, NOS
M9502/3 Teratoid medulloepithelioma
M9503/3 Neuroepithelioma, NOS
M9504/3 Spongioneuroblastoma
M9505/1 Ganglioglioma
M9506/0 Neurocytoma
M9507/0 Pacinian tumor
M9510/3 Retinoblastoma, NOS
M9511/3 Retinoblastoma, differentiated
M9512/3 Retinoblastoma, undifferentiated
M9520/3 Olfactory neurogenic tumor
M9521/3 Esthesioneurocytoma
M9522/3 Esthesioneuroblastoma
M9523/3 Esthesioneuroepithelioma

M953 MENINGIOMAS

M9530/0 Meningioma, NOS

M9530/1 Meningiomatosis, NOS
M9530/3 Meningioma, malignant
M9531/0 Meningotheliomatous meningioma
M9532/0 Fibrous meningioma
M9533/0 Psammomatous meningioma
M9534/0 Angiomatous meningioma
M9535/0 Hemangioblastic meningioma
M9536/0 Hemangiopericytic meningioma
M9537/0 Transitional meningioma
M9538/1 Papillary meningioma
M9539/3 Meningeal sarcomatosis

M954-M957 NERVE SHEATH TUMORS

M9540/0 Neurofibroma, NOS
M9540/1 Neurofibromatosis, NOS
M9540/3 Neurofibrosarcoma
M9541/0 Melanotic neurofibroma
M9550/0 Plexiform neurofibroma
M9560/0 Neurilemmoma, NOS
M9560/1 Neurinomatosis
M9560/3 Neurilemmoma, malignant
M9561/3 Triton tumor, malignant
M9562/0 Neurothekeoma
M9570/0 Neuroma, NOS

M958 GRANULAR CELL TUMORS AND ALVEOLAR SOFT PART SARCOMA

M9580/0 Granular cell tumor, NOS
M9580/3 Granular cell tumor, malignant
M9581/3 Alveolar soft part sarcoma

M959-M970 HODGKIN'S AND NON-HODGKIN'S LYMPHOMA

M959 MALIGNANT LYMPHOMAS, NOS OR DIFFUSE

M9590/3 Malignant lymphoma, NOS
M9591/3 Malignant lymphoma, non-Hodgkin's, NOS
M9592/3 Lymphosarcoma, NOS
M9593/3 Reticulosarcoma, NOS
M9594/3 Microglioma
M9595/3 Malignant lymphoma, diffuse, NOS

M965-M966 HODGKIN'S DISEASE

M9650/3 Hodgkin's disease, NOS
M9652/3 Hodgkin's disease, mixed cellularity, NOS
M9653/3 Hodgkin's disease, lymphocytic depletion, NOS
M9654/3 Hodgkin's disease, lymphocytic depletion, diffuse fibrosis

M9655/3 Hodgkin's disease, lymphocytic depletion, reticular
M9657/3 Hodgkin's disease, lymphocytic predominance, NOS
M9658/3 Hodgkin's disease, lymphocytic predominance, diffuse
M9659/3 Hodgkin's disease, lymphocytic predominance, nodular
M9660/3 Hodgkin's paragranuloma, NOS
M9661/3 Hodgkin's granuloma
M9662/3 Hodgkin's sarcoma
M9663/3 Hodgkin's disease, nodular sclerosis, NOS
M9664/3 Hodgkin's disease, nodular sclerosis, cellular phase
M9665/3 Hodgkin's disease, nodular sclerosis, lymphocytic predominance
M9666/3 Hodgkin's disease, nodular sclerosis, mixed cellularity
M9667/3 Hodgkin's disease, nodular sclerosis, lymphocytic depletion

M967-M968 MALIGNANT LYMPHOMA, DIFFUSE OR NOS, SPECIFIED TYPE

M9670/3 Malignant lymphoma, small lymphocytic, NOS
M9671/3 Malignant lymphoma, lymphoplasmacytic
M9672/3 Malignant lymphoma, small cleaved cell, diffuse
M9673/3 Malignant lymphoma, lymphocytic, intermediate differentiation, diffuse
M9674/3 Malignant lymphoma, centrocytic
M9675/3 Malignant lymphoma, mixed small and large cell, diffuse
M9676/3 Malignant lymphoma, centroblastic-centrocytic, diffuse
M9680/3 Malignant lymphoma, large cell, diffuse
M9681/3 Malignant lymphoma, large cell, cleaved, diffuse
M9682/3 Malignant lymphoma, large cell, non-cleaved, diffuse
M9683/3 Malignant lymphoma, centroblastic, diffuse
M9684/3 Malignant lymphoma, immunoblastic
M9685/3 Malignant lymphoma, lymphoblastic
M9686/3 Malignant lymphoma, small cell, non-cleaved, diffuse
M9687/3 Burkitt's lymphoma, NOS

M969 MALIGNANT LYMPHOMA, FOLLICULAR OR NODULAR, with or without diffuse areas

M9690/3 Malignant lymphoma, follicular, NOS
M9691/3 Malignant lymphoma, mixed small cleaved and large cell, follicular
M9692/3 Malignant lymphoma, centroblastic-centrocytic, follicular
M9693/3 Malignant lymphoma, lymphocytic, well differentiated, nodular
M9694/3 Malignant lymphoma, lymphocytic, intermediate differentiation, nodular
M9695/3 Malignant lymphoma, small cleaved cell, follicular
M9696/3 Malignant lymphoma, lymphocytic, poorly differentiated, nodular
M9697/3 Malignant lymphoma, centroblastic, follicular
M9698/3 Malignant lymphoma, large cell, follicular, NOS

M970 SPECIFIED CUTANEOUS AND PERIPHERAL T-CELL LYMPHOMAS

M9700/3 Mycosis fungoides
M9701/3 Sezary's disease
M9702/3 Peripheral T-cell lymphoma

M971 OTHER SPECIFIED NON-HODGKIN'S LYMPHOMAS

M9711/3 Monocytoid B-cell lymphoma
M9712/3 Angioendotheliomatosis
M9713/3 Angiocentric T-cell lymphoma
M9714/3 Large cell Ki-1 lymphoma

M972 OTHER LYMPHORETICULAR NEOPLASMS

M9720/3 Malignant histiocytosis
M9722/3 Letterer-Siwe's disease
M9723/3 True histiocytic lymphoma

M973 PLASMA CELL TUMORS

M9730/3 Multiple myeloma
M9731/3 Plasmacytoma, NOS

M974 MAST CELL TUMORS

M9740/1 Mastocytoma, NOS
M9740/3 Mast cell sarcoma
M9741/3 Malignant mastocytosis

M976 IMMUNOPROLIFERATIVE DISEASES

M9760/3 Immunoproliferative disease, NOS
M9761/3 Waldenstrom's macroglobulinemia
M9762/3 Alpha heavy chain disease
M9763/3 Gamma heavy chain disease
M9764/3 Immunoproliferative small intestinal disease
M9765/1 Monoclonal gammopathy
M9766/1 Angiocentric immunoproliferative lesion
M9767/1 Angioimmunoblastic lymphadenopathy
M9768/3 T-gamma lymphoproliferative disease

M980-M994 LEUKEMIAS

M980 LEUKEMIAS, NOS

M9800/3 Leukemia, NOS
M9801/3 Acute leukemia, NOS
M9802/3 Subacute leukemia, NOS
M9803/3 Chronic leukemia, NOS

M982	LYMPHOID LEUKEMIAS
M9820/3	Lymphoid leukemia, NOS
M9821/3	Acute lymphoblastic leukemia
M9822/3	Subacute lymphoid leukemia
M9823/3	Chronic lymphocytic leukemia
M9824/3	Aleukemic lymphoid leukemia
M9825/3	Prolymphocytic leukemia
M9826/3	Burkitt's cell leukemia
M9827/3	Adult T-cell leukemia/lymphoma
M983	PLASMA CELL LEUKEMIA
M9830/3	Plasma cell leukemia
M984	ERYTHROLEUKEMIAS
M9840/3	Erythroleukemia
M9841/3	Acute erythremia
M9842/3	Chronic erythremia
M985	LYMPHOSARCOMA CELL LEUKEMIA
M9850/3	Lymphosarcoma cell leukemia
M986	MYELOID (GRANULOCYTIC) LEUKEMIAS
M9860/3	Myeloid leukemia, NOS
M9861/3	Acute myeloid leukemia
M9862/3	Subacute myeloid leukemia
M9863/3	Chronic myeloid leukemia
M9864/3	Aleukemic myeloid leukemia
M9866/3	Acute promyelocytic leukemia
M9867/3	Acute myelomonocytic leukemia
M9868/3	Chronic myelomonocytic leukemia
M987	BASOPHILIC LEUKEMIA
M9870/3	Basophilic leukemia
M988	EOSINOPHILIC LEUKEMIA
M9880/3	Eosinophilic leukemia

M9890/3 Monocytic leukemia, NOS
M9891/3 Acute monocytic leukemia
M9892/3 Subacute monocytic leukemia
M9893/3 Chronic monocytic leukemia
M9894/3 Aleukemic monocytic leukemia

M990-M994 OTHER LEUKEMIAS

M9900/3 Mast cell leukemia
M9910/3 Acute megakaryoblastic leukemia
M9930/3 Myeloid sarcoma
M9931/3 Acute panmyelosis
M9932/3 Acute myelofibrosis
M9940/3 Hairy cell leukemia

M995-M997 MISCELLANEOUS MYELOPROLIFERATIVE AND LYMPHOPROLIFERATIVE DISORDERS

M9950/1 Polycythemia vera
M9960/1 Chronic myeloproliferative disease
M9961/1 Myelosclerosis with myeloid metaplasia
M9962/1 Idiopathic thrombocythemia
M9970/1 Lymphoproliferative disease, NOS

M998 MYELODYSPLASTIC SYNDROMES

M9980/1 Refractory anemia, NOS
M9981/1 Refractory anemia without sideroblasts
M9982/1 Refractory anemia with sideroblasts
M9983/1 Refractory anemia with excess of blasts
M9984/1 Refractory anemia with excess of blasts with transformation
M9989/1 Myelodysplastic syndrome, NOS

= = =

DISTR. : LIMITED
DISTR. : LIMITEE

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

WHO/ICD10/REV.CONF/89.11

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

DEFINITIONS, STANDARDS AND REPORTING REQUIREMENTS RELATED TO MATERNAL AND CHILD HEALTH AND THE PERINATAL PERIOD

I. HISTORICAL BACKGROUND

A limited number of definitions and recommendations were included in the Eighth Revision of the ICD. The definitions themselves covered only live birth, fetal death, causes of death, and the underlying cause of death.

As a part of the preparations for the Ninth Revision, a Scientific Group on Health Statistics Methodology Related to Perinatal Events was held in Geneva from 30 April to 6 May 1974. The group formulated a number of definitions and recommendations for perinatal and maternal events as well as for the terminology and format for statistical tables.

These recommendations were submitted to the Expert Committee on Health Statistics which met from 4 to 10 June 1974. The Expert Committee endorsed the Scientific Group's recommendations relating to the perinatal period but noted with reservations the recommendations related to maternal mortality definitions.

The Scientific Group had defined "life at birth" and then defined "live birth" as a birth with evidence of life and "still birth" as birth with no evidence of life. The definitions also included a lower limit of birth weight (1000g) for stillbirths for the calculation of perinatal mortality rates.

The International Conference for the Ninth Revision of the ICD which took place from 30 September to 6 October 1975 gave further detailed consideration to the definitions and recommendations and decided to retain the definitions of live birth and fetal death as they appeared in ICD-8. Also, because of a lack of general agreement on a number of the definitions, the only new definitions recommended for adoption by the World Health Assembly related to birth weight, gestational age and maternal mortality. However, the recommendations for the presentation of perinatal statistics included a cut-off point of a 1000 g birth weight for inclusion in statistics for international comparisons to overcome the problems caused by differences within and between countries in the application of definitions.

II. ACTIVITIES RELATED TO DEFINITIONS AND STANDARDS FOR ICD-10

In the interest of improving the comparability of national and international health statistics, the Preparatory meeting on ICD-10 held in Geneva in September 1983 and the first Expert Committee on ICD-10 which met in San Francisco in June 1984 recommended the review and revision of definitions and standards related to maternal and child health and the perinatal period in consultation with experts, including epidemiologists and representatives of the United Nations Statistical Office (UNSO).

In response to these recommendations, WHO convened a consultation on definitions and standards related to maternal and child health and the perinatal period which was held in Geneva from 10 to 14 December 1984 (WHO working document ICD/PE/84.1). The consultation discussed the definitions and recommendations contained in ICD-9 and made a number of proposals for addition and amendment which were circulated to WHO Collaborating Centres for Classification of Diseases, appropriate groups of experts and discussed with UNSO.

A summary of the comments received on the recommendations was presented to the Heads of WHO Collaborating Centres for the Classification of Diseases in April 1986 (Working document WHO/DES/ICD/86.19). The Centre Heads noted the two major areas of disagreement, namely the change of concept from "fetal death" to the new concept of "deadbirth", and the definition of numerators and denominators for the calculation of perinatal and maternal mortality rates. In addition, there were a number of questions related to definitions of maternal mortality and the associated 42 day reference period. In view of the importance of these topics, the expressed interest of many countries, and the concerns of UNSO of balancing the need for providing internationally comparable statistics with the need for promoting the availability of statistics, particularly in developing countries, the Centre Heads recommended that WHO convene a further meeting to resolve the outstanding areas of disagreement.

This consultation was held in Washington DC, USA from 30 March to 3 April 1987 and included representatives of the International Federation of Gynaecology and Obstetrics (FIGO) and UNSO.

Its recommendations were presented to the second Expert Committee on ICD-10 in November 1987 (Working documents WHO/DES/ICD/PE/87.1 and WHO/DES/EC/IC-10/87.25). The Expert Committee was also informed of the objections that had been made to the recommendation of the Washington consultation that a "fetal death" be redesignated a "deadborn fetus". While the Committee agreed that deadborn fetus was logically more correct, fetal death is the term traditionally used for statistical purposes. The Committee therefore recommended the following definition:

> "Fetal death (deadborn fetus). For statistical purposes a fetal death is a deadborn fetus which, after birth, does not breathe or show evidence of life as demonstrated by beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached".

The Expert Committee also disagreed with the use of the term "standard" to describe early neonatal and infant mortality rates, and felt that further clarification was required concerning the types of maternal mortality rates that were recommended. It proposed that the maternal mortality rate should include both direct and indirect obstetric deaths. Separate rates for direct maternal mortality and indirect maternal mortality should also be calculated.

At their meeting in 1988, the Centre Heads gave further consideration to the definitions and recommendations and proposed that the definitions of both "live birth" and "fetal death" used in ICD-9 should be retained in ICD-10. In relation to the words "deadborn fetus" it was agreed to use them in parentheses after fetal death and in the numerators of ratios and rates. However, countries could drop the term in those language versions where this was appropriate.

Further extensive discussions and correspondence took place subsequently between WHO, FIGO and UNSO and revised proposals were submitted to the Centre Heads at their 1989 meeting. A number of separate comments and recommendations from UNSO were also discussed.

While the Centre Heads agreed that it was possible to accept the UNSO recommendation relating to the descriptors applied to the various ratios and rates and to the order of entry of items, problems remained regarding the definitions applied to maternal mortality and to the descriptors of the maternal mortality ratios and rates.

No explicit definition of maternal mortality had been included in the report of the Washington consultation.

The Centre Heads were concerned that the ICD-9 definition excluded the increasing number of deaths from obstetric causes that occurred after the end of the puerperium and recommended that maternal mortality should be defined as follows:

> "A maternal death is defined as the death of a woman from any cause arising during pregnancy, childbirth or the puerperium (usually considered to be 42 days) irrespective of the duration and site of the pregnancy, even though death may occur after the end of the puerperium".

It should be noted that the ICD-9 definition of maternal mortality includes only direct and indirect obstetric deaths whereas the definition as proposed for ICD-10 includes maternal deaths from any cause i.e. direct obstetric, indirect obstetric and non-obstetric (coincidental) maternal deaths.

For the purposes of the international reporting of maternal mortality, only those deaths occurring before the end of the 42 day reference period would be included in the various ratios and rates, though it was felt that the collection of later deaths would be useful for national analytical purposes.

This change of definition has resulted in the addition of appropriate categories to the Chapter of Pregnancy, childbirth and the puerperium of ICD-10 to ensure that maternal mortality from direct obstetric causes could be defined by ICD codes according to when death occurred.

III. CERTIFICATE OF CAUSE OF PERINATAL DEATH

A certificate of cause of perinatal death together with instructions for completion and coding of the causes of death was introduced at the Ninth Revision of the ICD.

This certificate has been successfully adopted by a number of countries. At the meeting of Heads of WHO Collaborating Centres for Classification of Diseases held from 28 February to 7 March 1989, the London and Moscow Centres reported on their experience in the use of the certificate. The papers and subsequent discussion led the Centre Heads to recommend that the scope of the certificate should be extended to cover all neonatal deaths (i.e. those occurring during the first 28 days of life). This would require a change of title to show that the certificate was intended for fetal and neonatal deaths. Also, the instructions for selection and tabulation of a single underlying cause should be included in the section related to the certificate and not in the section on Definitions and Recommendations on Perinatal Mortality Statistics as had been the case in ICD-9.

IV. RECOMMENDED DEFINITIONS, STANDARDS AND REPORTING REQUIREMENTS FOR ICD-10 RELATED TO FETAL, PERINATAL, NEONATAL AND INFANT MORTALITY

1. Definitions

1.1 Live birth

Live birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after birth, breathes or shows any other evidence of life as demonstrated by beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born.

1.2 Fetal death [deadborn fetus]

Fetal death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the fetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached.

1.3 Birth weight

The first weight of the fetus or newborn obtained after birth.

1.4 Low birth weight

Less than 2500 g (up to, and including 2499 g).

1.5 Very low birth weight

Less than 1500 g (up to, and including 1499 g).

1.6 Extremely low birth weight

Less than 1000 g (up to, and including 999 g).

The duration of gestation is measured from the first day of the last normal menstrual period. Gestational age is expressed in completed days or completed weeks (e.g. events occurring 280 to 286 completed days after the onset of the last normal menstrual period are considered to have occurred at 40 weeks of gestation).

1.8 Pre-term

Less than 37 completed weeks (less than 259 days) of gestation.

1.9 Term

From 37 completed weeks to less than 42 completed weeks (259 to 293 days) of gestation.

1.10 Post-term

42 completed weeks or more (294 days or more) of gestation.

1.11 Perinatal period

The perinatal period commences at 22 completed weeks (154 days) of gestation (the time when birth weight is normally 500 g), and ends 7 completed days (168 hours) after birth.

1.12 Neonatal period

The neonatal period commences at birth and ends 28 completed days after birth. Neonatal deaths (deaths among live births during the first 28 completed days of life) may be subdivided into early neonatal deaths, occurring in the first seven completed days (168 hours) of life and late neonatal deaths, occurring after the seventh day but before 28 completed days of life.

2. Notes on definitions

2.1 For live births, birth weight should be measured preferably within the first hour of life before significant postnatal weight loss has occurred. Whilst statistical tabulations include 500 g groupings for birth weight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy that it is measured.

2.2 The definitions of "low", "very low", and "extremely low" birth weight do not constitute mutually exclusive categories. Below the set limits they are all-inclusive and therefore overlap. (i.e. "low" includes "very low" and "extremely low", while "very low" includes "extremely low").

2.3 Gestational age is frequently a source of confusion when calculations are based on menstrual dates. For the purposes of calculation of gestational age from the date of the first day of the last normal menstrual period and the date of delivery, it should be borne in mind that the first day is day zero and not day one; days 0-6 therefore correspond to "completed week zero", days 7-13 to "completed week one", and the 40th week of actual gestation is synonymous with "completed week 39". In order to avoid misunderstanding, tabulations should indicate both weeks and days.

3. Reporting requirements

3.1 It is recognized that legal requirements for the registration of fetal deaths and live births still vary from country to country and even within countries. However, it is recommended that, wherever possible, all fetuses and infants delivered weighing at least 500 g, whether alive or dead, be included in the statistical tabulations. When birth weight is unavailable, the corresponding criteria for gestational age (22 completed weeks), or body length (25 cm crown-heel) should be used. The criteria for deciding whether an event has taken place within the perinatal period should be applied in the order 1) birth weight, 2) gestational age, 3) crown-heel length. The inclusion of fetuses and infants weighing between 500 g and 1000 g in national statistics is recommended both because of its inherent value and because this inclusion improves the completeness of reporting at 1000 g and over.

3.2 In statistics for international comparison, inclusion of this group of extremely low birth weight births disrupts the validity of comparisons and is not recommended. Countries should therefore arrange registration and reporting procedures so that the events and the criteria for their inclusion in the statistics can be easily identified. Less mature fetuses and infants not corresponding to these criteria should be excluded from perinatal statistics unless there are legal or other valid reasons to the contrary, in which case this inclusion must be explicitly stated. Where these characteristics are unknown, the event should be included in, rather than excluded from, mortality statistics of the perinatal period. Countries should also present standard statistics in which both the numerator and the denominator of all ratios and rates are restricted to fetuses and infants weighing 1000 g or more (weight-specific ratios and rates); where birth weight is unavailable, the corresponding gestational age (28 completed weeks) or body length (35 cm crown-heel) should be used.

3.3 In reporting fetal, perinatal, neonatal and infant mortality statistics the number of deaths due to lethal malformations should whenever possible be identified for live births and fetal deaths and in relation to birth weight of 500-999 g and 1000 g or more. Neonatal deaths due to lethal malformations should be subdivided into early and late neonatal deaths. The availability of this information enables perinatal and neonatal mortality statistics to be reported with or without the deaths from lethal malformations. A lethal malformation is defined as a congenital morphological anomaly (see Chapter XVII) regarded to be the primary cause of death during the fetal and neonatal period.

When a malformation was thought to have led to a train of events resulting in death the fetus or infant should be classified under this heading. In other words, an infant with diaphragmatic hernia who died during surgery would be deemed to have died as a result of a lethal malformation. On the other hand, an infant with a hare lip that died of meningitis would not.

4. Ratios and rates

Published ratios and rates should always specify the denominator that has been used, i.e., live births or total births (live births plus fetal deaths). Countries are encouraged to provide the ratios and rates listed below, or as many of them as their data collection systems permit:

4.1 Fetal death ratio

$$\frac{\text{Fetal deaths}}{\text{Live births}} \times 1000$$

4.2 Fetal death rate:

$$\frac{\text{Fetal deaths}}{\text{Total births}} \times 1000$$

4.3 Fetal death rate, weight-specific:

$$\frac{\text{Fetal deaths weighing 1000 g and over}}{\text{Total births weighing 1000 g and over}} \times 1000$$

4.4 Early neonatal mortality rate:

$$\frac{\text{Early neonatal deaths}}{\text{Live births}} \times 1000$$

4.5 Early neonatal mortality rate, weight-specific:

$$\frac{\text{Early neonatal deaths of infants weighing 1000 g and over at birth}}{\text{Live births weighing 1000 g and over}} \times 1000$$

4.6 Perinatal mortality ratio:

$$\frac{\text{Fetal deaths and early neonatal deaths}}{\text{Live births}} \times 1000$$

4.7 Perinatal mortality rate[1]

$$\frac{\text{Fetal deaths and early neonatal deaths}}{\text{Total births}} \times 1000$$

4.8 Perinatal mortality rate, weight-specific:

$$\frac{\text{Fetal deaths weighing 1000 g and over, plus early neonatal deaths of infants weighing 1000 g and over at birth}}{\text{Total births weighing 1000 g and over}} \times 1000$$

4.9 Neonatal mortality rate:

$$\frac{\text{Neonatal deaths}}{\text{Live births}} \times 1000$$

4.10 Neonatal mortality rate, weight-specific:

$$\frac{\text{Neonatal deaths of infants weighing 1000 g and over at birth}}{\text{Live births weighing 1000 g and over}} \times 1000$$

4.11 Infant mortality rate:

$$\frac{\text{Number of deaths under one year of age}}{\text{Live births}} \times 1000$$

---

[1]The perinatal mortality rate is the number of fetal deaths weighing at least 500 g (or, when birth weight is unavailable, after 22 completed weeks of gestation or with a crown-heel length of 25 cm or more), plus the number of early neonatal deaths, per 1000 total births. Because of the different denominators in each component, this is not necessarily equal to the sum of the fetal death rate and the early neonatal mortality rate.

4.12 Infant mortality rate, weight-specific:

$$\frac{\text{Infant deaths among live births weighing 1000 g and over at birth}}{\text{Live births weighing 1000 g and over}} \times 1000$$

V. RECOMMENDED DEFINITIONS, STANDARDS AND REPORTING REQUIREMENTS FOR ICD-10 RELATED TO MATERNAL MORTALITY

1. Definitions

1.1 A maternal death is the death of a woman from any cause arising during pregnancy, childbirth or the puerperium (usually considered to be 42 days), irrespective of the duration and site of the pregnancy, even though death may occur after the end of the puerperium.

1.2 Maternal deaths may be subdivided into three groups:

1.2.1 Direct obstetric deaths: those resulting from complications of pregnancy, childbirth, or the puerperium including interventions, omissions, incorrect treatment, or from a chain of events resulting from any of the above.

1.2.2 Indirect obstetric deaths: those resulting from previous existing diseases or diseases that developed during pregnancy, childbirth, or the puerperium which were not due to direct obstetric causes but which were aggravated by the physiologic effects of pregnancy.

1.2.3 Non-obstetric maternal deaths: those resulting from accidental or incidental causes not related to pregnancy, childbirth, or the puerperium but occurring during that period.

2. Reporting requirements

2.1 For the purposes of the international reporting of maternal mortality only those deaths occurring before the end of the 42-day reference period should be included in the various ratios and rates, though the collection of later deaths is useful for national analytical purposes.

2.2 Published maternal mortality rates should always specify the numerator (number of recorded maternal deaths), which can be given as:

- the number of recorded direct obstetric deaths, or
- the number of recorded obstetric deaths (direct plus indirect), or
- the number of all recorded maternal deaths, being the sum of both the number of recorded obstetric deaths and the number of recorded non-obstetric maternal deaths (each component value should be provided).

2.3 The denominator used for calculation of the maternal mortality ratios or rates should likewise be specified as the number of live births or the number of total births (live births plus fetal deaths). Where figures for both live births and fetal deaths are available, a ratio and a rate should be published for each denominator.

2.4 Maternal deaths due to obstetric causes but occurring after the end of the puerperium should not be included in the calculation of maternal mortality rates.

3. Ratios and rates

Rates should be expressed as a ratio of the numerator to the denominator, multiplied by 1 000, 10 000, or 100 000 as preferred and indicated by the country. Maternal mortality ratios and rates can thus be expressed as:

3.1 Maternal mortality ratio:

$$\frac{\text{Maternal deaths (obstetric and non-obstetric)}}{\text{Live births}} \times k$$

3.2 Maternal mortality rate:

$$\frac{\text{Maternal deaths (obstetric and non-obstetric)}}{\text{Total births}} \times k$$

3.3 Obstetric mortality ratio:

$$\frac{\text{Obstetric deaths (direct and indirect) only}}{\text{Live births}} \times k$$

3.4 Obstetric mortality rate:

$$\frac{\text{Obstetric deaths (direct and indirect) only}}{\text{Total births}} \times k$$

3.5 Direct obstetric mortality ratio:

$$\frac{\text{Direct obstetric deaths only}}{\text{Live births}} \times k$$

3.6 Direct obstetric mortality rate:

$$\frac{\text{Direct obstetric deaths only}}{\text{Total births}} \times k$$

where k may be 1 000, 10 000 or 100 000 as specified by the country.

= = =

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR.: LIMITED
DISTR.: LIMITEE

WHO/ICD10/REV.CONF/89.12

ORIGINAL: ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

PROPOSALS FOR GLOSSARY DEFINITIONS FOR SOME SUBCATEGORIES OF Z60, Z61, Z62, Z63 IN THE CHAPTER ON FACTORS INFLUENCING HEALTH STATUS AND CONTACT WITH HEALTH SERVICES

The following glossary definitions are proposed to be included in Chapter XXI (Z-code) of ICD-10 to facilitate the use of the newly introduced categories Z60, Z61, Z62, and Z63.

Z60 Problems related to the social environment

Z60.1 Atypical parenting situation
Problems related to a parenting situation (e.g. rearing of children) other than of two cohabiting biological parents.

Z60.4 Social exclusion and rejection
Exclusion and rejection on the basis of personal characteristics, e.g. unusual physical appearance, illness or behaviour.

Excludes: target of adverse discrimination such as for racial or religious reasons (Z60.5).

Z60.5 Target of adverse discrimination and persecution
Persecution or discrimination, resulting in injury or humiliation on the basis of membership of some group (as defined by skin colour, religion, ethnic origin, etc.) rather than personal characteristics.

Excludes: social exclusion and rejection (Z60.4).

Z61 Problems related to negative life events in childhood

Z61.0 Loss of love relationship
Loss of an emotionally close relationship, e.g. of a parent, a sibling, a very special friend or a loved pet, by death or permanent departure or rejection.

Z61.1 Removal from home
Admission to a foster home or a hospital causing psychosocial stress or forced conscription into an activity away from home for a prolonged period.

Z61.2 Negatively altered pattern of family relationships
Arrival of a new person into a family resulting in adverse change in child's relationships. Can include new marriage by a parent or birth of younger sibling.

Z61.3 Events resulting in loss of self-esteem
Events resulting in a negative self reappraisal by the child. Failure in tasks with high personal investment. Disclosure or discovery of a shameful or stigmatizing personal or family event. Humiliation experiences.

Z61.4 Problems related to sexual abuse of child by person with primary support group
Problems related to any form of physical contact or exposure between an adult member of the child's household and the child that has led to sexual arousal, whether or not the child has willingly engaged in the sexual acts (e.g. any genital contact, manipulation or deliberate exposure of breasts or genitals).

Z61.5 Problems related to sexual abuse of child by person outside of primary support group
Problems related to contact or attempted contact with the child's or the other person's breasts or genitals, sexual exposure in close confrontation or attempt to undress or seduce the child, by a substantially older person outside the child's family, either on the basis of this person's position or status or against the will of the child.

Z61.6 Problems related to physical child abuse
Problems related to incidents in which the child has been injured in the past by any adult in the household to a medically significant extent (e.g. fractures, marked bruising) or that involved forms of violence that are abnormal (e.g. hitting the child with hard or sharp implements, burning or tying up of the child).

Z61.7 Personal frightening experience
Experience carrying a threat for the child's future, such as a kidnapping, natural disasters with a threat to life, injury with a threat to self-image or security, or witnessing a severe trauma to a beloved person.

Z62 Other problems related to upbringing of child
Lack of parental knowledge of what the child is doing or where the child is; poor control; lack of concern or lack of attempted intervention when the child is in risky situations.

Z62.1 Parental overprotection
Pattern of upbringing resulting in infantilization and prevention of independent behaviour.

Z62.2 Institutional upbringing
Group foster care in which parenting responsibilities are largely taken over by some form of institution (such as residential nursery, orphanage, children's home) or therapeutic care over a prolonged period in which the child is in a hospital, convalescent home or the like, without at least one parent living with the child.

Z62.3 Hostility towards and scapegoating of child

Negative parental behaviour specifically focussed on the child as an individual, persistent over time and pervasive over several child behaviours (e.g. automatically blaming the child for any problems in the household or attributing negative characteristics to the child).

Z62.4 Emotional neglect of child

Parent talking to the child in a dismissive or insensitive way. Lack of interest in the child, of sympathy for the child's difficulties and of praise and encouragement. Irritated reaction to anxious behaviour and absence of sufficient physical comforting (including lack of warmth).

Z62.7 Inappropriate parental pressures and other abnormal quality of upbringing

Parents forcing the child to be different than the local norm, either sex inappropriate (e.g. dressing a boy in girl's clothes), age inappropriate (e.g. forcing a child to take on responsibilities above her or his age) or otherwise inappropriate (e.g. pressing the child to engage in unwanted or too difficult activities).

Z63 Other problems related to the primary support group, including family circumstances

Z63.0 Problems in relationship with spouse or partner

Discord between partners resulting in severe or prolonged loss of control, generalization of hostile or critical feelings or in a persisting atmosphere of severe interpersonal violence (hitting or striking).

= = =

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.13

ORIGINAL : ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

MORTALITY - MEDICAL CERTIFICATION AND RULES FOR CLASSIFICATION

INTRODUCTION

Three consultations have been convened by WHO to consider the instructions for the selection and coding of the underlying cause of death to be used in conjunction with ICD-10. A Working Party on the Review of Selection and Modification Rules for Underlying Cause of Death met in Budapest, Hungary in April 1983, and a Consultation on Rules and Definitions in Death Certification in Relation to ICD-10 was held in Titchfield, United Kingdom in April 1987. In addition, a Consultation on Cancer Coding Rules for ICD-10 took place in Geneva in November 1988.

The recommendations of these meetings combined with further input from temporary advisers, meetings of Heads of WHO Collaborating Centres for Classification of Diseases, and a full proposal for revision of the notes prepared by the Pan American Health Organization and the WHO Collaborating Centre for Classification of Diseases in Portugese, Sao Paulo, Brazil have resulted in definitive proposals for ICD-10. Also, field trials of the draft notes for the coding of death certificates with mention of malignant neoplasms have been conducted under the auspices of the International Agency for Research on Cancer and the United States National Cancer Institute.

Many of the proposed changes relate to the order of items, to improved wording and to the inclusion of additional explanation and examples to the coding rules. The substantive changes are outlined below.

INTERNATIONAL FORM OF MEDICAL CERTIFICATE OF CAUSE OF DEATH

In considering the international form of medical certificate of cause of death the Expert Committee on ICD-10, which met in Geneva from 23 to 27 November 1987, recognized that with an aging population frequently dying with multiple pathologies and the effect of therapeutic interventions increasing the number of possible statements between the underlying cause and the direct cause of death, an increasing number of conditions were being entered on death certificates in many countries. This often meant that once the direct and antecedent causes had been entered the only space left for the underlying cause was in Part II of the certificate.

For these reasons the Expert Committee recommended that for ICD-10, an additional line (d) be added to Part I of the certificate. The Centre Heads at their 1989 meeting, however, realized that this recommendation might cause legal difficulties in some countries and recommended that a statement be included in ICD-10 to the effect that Member States could retain a certificate with three lines in Part I.

RULES FOR SELECTION OF CAUSE OF DEATH FOR PRIMARY MORTALITY TABULATION

Selection rules

In order to make the process of selection of a single cause easier to teach, understand and apply, it is proposed firstly to define what is meant by a "logical sequence" and then to formulate the various rules to explain the action to be taken in the presence or absence of a logical sequence.

It is proposed to redefine the General rule as a "General principle" in a positive rather than a negative way as follows:

> "When more than one condition is entered on the certificate, select the condition entered alone on the lowest used line of Part I only if it could have given rise to all the conditions entered above it".

No change is proposed to ICD-9 Rules 1 and 2 except to substitute "logical sequence" and "General principle" for "reported sequence" and "General rule", respectively.

ICD-9 Rule 3 is probably the rule that caused the widest divergence in interpretation because of the difficulty found by coders in deciding whether one condition "can be considered" a direct sequel of another.

In order to minimize possible variations in interpretation, it is proposed to record the rule as follows:

> "If the condition selected by the General principle or by Rule 1 or Rule 2 is obviously a direct consequence of another reported condition, whether in Part I or Part II, select this primary condition".

Also, additional guidance will be provided as to which conditions may be considered as obviously being a direct consequence of other reported conditions.

Modification rules

It is proposed to redesignate these rules by a letter instead of a number in order to distinguish them more clearly from the selection rules.

Regarding ICD-9 Rules 4 (Senility) and 5 (Ill-defined conditions), the Budapest and Titchfield consultations recommended that Rules 4 and 5 should be combined. This was subsequently endorsed by the Expert Committee on ICD-10. The revised rule would read as follows:

> "Rule A. Senility and ill-defined conditions
> Where the selected cause is classifiable to Chapter XVIII (Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified) except for R95 (Sudden infant death syndrome) and a condition classified elsewhere than to R00-R94, R96-R99 is reported on the certificate, reselect the cause of death as if the condition classified to Chapter XVIII had not been reported, except to take account of that condition if it modifies the coding".

and others in interpretation, as it attempted to make a distinction between those therapeutic misadventures related to trivial conditions and those associated with more serious conditions covered by Rule 12 (Errors and accidents in medical care). It is recommended that the part of the ICD-9 rule preferring a more serious unrelated condition should be deleted so that the rule would read:

> "Rule B. Trivial conditions
> Where the selected cause is a trivial condition unlikely to cause death and a more serious condition is reported, reselect the underlying cause as if the trivial condition had not been reported. If the death was the result of an adverse reaction to treatment of the trivial condition, select the adverse reaction".

International guidance as to what constitutes a trivial condition has not been given in the past because of a lack of agreement on these conditions. The Heads of WHO Collaborating Centres for Classification of Diseases have expressed their concern about the effect this has on the international comparability of mortality data and have agreed to supply WHO's Unit of Development of Epidemiological and Health Statistical Services with copies of national lists. These will then be collated and discussed at the next meeting of Centre Heads in 1990 with a view to their possible inclusion in the reorientation training material for ICD-10.

For ICD-9 Rules 7-9, no changes are proposed. These rules will appear in ICD-10 as:

Rule C. Linkage
Rule D. Specificity
Rule E. Early and late stages of disease

For ICD-9 Rule 10 (Late effects), no change is proposed to application. The term "Sequelae" is used instead of the ICD-9 designation Late effects to reflect the terminology in the draft proposals for ICD-10. The title of the rule would read as follows: Rule F. Sequelae.

In ICD-9, Rule 11 (Old pneumonia, influenza and maternal conditions) moved assignment away from pneumonia or influenza where there was evidence that the date of onset was one year or more prior to death or a resultant chronic condition was reported. Similarly, for maternal conditions, where there was evidence that death occurred more than 42 days after termination of pregnancy or a resultant chronic condition was reported, the underlying cause was reselected as if the maternal condition had not been reported.

Experience has shown that old pneumonia and old influenza are not a problem as a cause of late effects. Also, provision has been made in the draft proposal for ICD-10 to identify direct obstetric deaths occurring more than 42 days but less than one year after termination, and those occurring one year or more after termination. It is recommended therefore that this rule should be deleted.

ICD-9 Rule 12 (Errors and accidents in medical care) was introduced at ICD-9 in an attempt to identify those causes of mortality that were the result of an error or accident during medical care (conditions classifiable to ICD-9 categories E850-E858, E870-E876). Such information is however rarely available on death certificates and the little that is given is often misleading to the coder. The Titchfield consultation noted that physicians were reluctant to declare such circumstances and so there was little point in attempting to collect the information. Consequently, it is recommended that this rule be deleted.

NOTES FOR USE IN UNDERLYING CAUSE MORTALITY CODING

These notes are revised to reflect changes proposed for ICD-10 and to:

- allow human immunodeficiency virus [HIV] disease as a cause of malignant neoplasm;
- select tetanus (A35) as the underlying cause irrespective of the severity of the injury (in ICD-9 the external cause was selected when tetanus followed a serious injury but the tetanus was selected when there was only minor injury);
- assign accidents due to epilepsy to the external cause. In ICD-9 these were classified to epilepsy.

It was proposed that the linkages relevant to modification rule C should also be shown in a columnar format as in the following example:

Selected cause	With mention of	As cause of	Resulting linked code
I10.-	I11.-		I11.-
	I12.-		I12.-
	I13.-		I13.-
	I20-I25		I20-I25
	I60-I69		I60-I69
	N00.-		I12.-
	N01.-		I12.-
	N03.-		I12.-
	N04.-		I12.-
	N05.-		I12.-
	N18.-		I12.-
	N19.-		I12.-
	N26		I12.-
		H35.-	H35.-
		I05-I09	I34-I38
		I34-I38	I34-I38
		I50.-	I11.-
		I51.-	I11.-

NOTES FOR INTERPRETATION OF ENTRIES OF CAUSES OF DEATH

It is proposed that in addition to the changes necessitated by the classification, the following amendments should be implemented:

ICD-9 Section I: Guides for the determination of the probability of sequences

For part B. Interpretation of "highly improbable":

- allow any infectious disease to be "due to" diseases and tumours compromising the immune mechanism, including the effects of chemotherapy and radiation;

- accept varicella zoster infections as "due to" diabetes.

ICD-9 Section III: Late effects

Amend title to "Sequelae", otherwise no change.

ICD-9 Section IV: Sex limitations

Change title to "Consistency between gender and diagnosis"

ICD-9 Section VI: Malignant neoplasms

It is proposed that this section should be significantly extended with more detailed guidance and examples to overcome inconsistent application of the notes in ICD-9. In particular, a new subsection is recommended for the use of category C97 (Independent (primary) multiple sites) and to allow any infectious disease, except HIV disease, to be "due to" cancer because of the immunosuppressive effects of modern therapy and to permit HIV disease as a cause of malignant neoplasms. The section related to "metastatic" neoplasms is considerably expanded as a result of experience obtained from the International Death Certificate Study organized by the United States National Cancer Institute.

ICD-9 Section VIII: Congenital anomalies

Amend title to "Congenital malformations, deformations and chromosomal abnormalities". Apart from the changed heading it is recommended that endocarditis and myocarditis should no longer be assumed to be congenital when death from these causes occurs at under four weeks of age.

ICD-9 Section IX: Nature of injury

ICD-9 provided an order of preference for cases where more than one kind of injury was mentioned. Given the proposed change in the main axis of classification in Chapter XIX from "type of injury" to "body region" it is recommended that where there is more than one kind of injury to a single body region and there is no clear indication as to which caused death then the General principle and the Selection rules should be applied in the normal way. When more than one body region is involved then coding should be made to the relevant category of Injuries involving multiple body regions (T00-T06).

The following note is proposed to be added to the Notes for interpretation of entries of causes of death as guidance on the use of Chapter XX:

"External causes

The codes for External causes (V01-Y89) should be used as the primary codes for single-condition coding and tabulation of the underlying cause when, and only when, the morbid condition is classifiable to Chapter XIX (Injury, poisoning and certain other consequences of external causes).

When the morbid condition is classified to Chapters I-XVIII, the morbid condition itself should be coded as the underlying cause and categories from the chapter for External causes may be used, if desired, as supplementary codes."

No changes are propsed to ICD-9 sections:

II. Effect of duration on classification
V. Operations
VII. Rheumatic fever with heart involvement
X. Poisoning by drugs, medicaments and biological substances
XI. Expression indicating doubtful diagnosis

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.14
ORIGINAL : ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

MORBIDITY - GUIDELINES FOR RECORDING AND CODING

1. INTRODUCTION

1.1 Background

Although the International Statistical Classification of Diseases and Related Health Problems had as its origin a classification for standard recording and coding of medical information concerning causes of death (mortality), in recent years the classification has been increasingly adapted so that it is suitable for application to data on illness, injuries and associated health care problems (morbidity). This has involved both greater specificity in the classification itself and extension to allow adequate classification of non-fatal conditions.

Mortality statistics are derived from medical certificates of causes of death which summarize the diseases, injuries and circumstances leading to death and, where there is more than one, categorize them so that one "underlying" cause can be selected for routine, single-cause analysis. This provides the data required for statistical analysis of the causes of mortality and for the derivation of information for epidemiological studies. The underlying cause has been defined from the standpoint of prevention of death with the aim of preventing the precipitating cause from operating, or of interrupting the chain of events, or of instituting a cure at some point.

For morbidity, the situation is far from clear-cut. Data have to be derived from whatever source-material is available in health care records, or collected specially, and a picture of illness and injury in the "community" has to be built up, piecemeal, from these various sources. The Sixth, Seventh and Eighth Revisions of ICD, whilst making recommendations concerning certification and rules for classification of causes of mortality, have been silent on the subject of morbidity, leaving such methods and rules to be developed by individual users, or groups of users, of the classification.

However, the interest in data on episodes of morbidity (either from records of episodes of health care or from surveys on episodes of illness or injury), has increased and more and more countries have started to collect data on a wide scale for routine analysis of morbidity in a way similar to that undertaken for mortality, and based on a single cause.

Starting with the Ninth Revision, WHO provided guidance on the recording of diagnoses and the selection of a single cause of morbidity from records of episodes of hospital or other health-care in this context. This has been clarified and elaborated in the light of experience and is set out in section 2 of the present paper.

1.2 Sources of data on causes of morbidity

Information on the causes of illness and injury is recorded in clinical and administrative records when persons seek health care, when health care is delivered to them in the form of special programmes, and when health records are kept or special surveys are done of populations or sub-populations. Examples of such records are:

- hospital and similar in-patient records;
- ambulatory care (out-patient) records;
- records of maternal and child health services;
- school medical records;
- occupational medical records;
- armed services medical records;
- surveys of the population or sub-populations in which data are collected of episodes of illness current at a given point in time or experienced in a specified time-period;
- recording of occurrence of "sentinel" conditions or conditions such as congenital anomalies, communicable diseases etc;
- cancer and chronic disease registry records;
- special records kept over long periods of follow-up of particular groups or samples of people e.g. those born at a specific time, those who have suffered from a specific "index" disease or injury.

Where statistical analysis of morbidity is to be performed, the data have to be organized systematically, and the diagnoses classified according to ICD usually have to relate to conditions involved in a specific episode of illness or health care or to a cumulative series of such episodes. If the data are to be derived from detailed records kept primarily for clinical and administrative purposes, the relevant data must be easily identifiable for statistical processing.

1.3 Uses of morbidity data

Data derived from the above records can be used for many purposes and in various ways. The following are examples of some broad (and sometimes overlapping) areas:

- in clinical applications for treatment evaluation, clinical research and case retrieval;
- in applied epidemiology, where analysis of morbidity patterns of geographical areas or demographic and socioeconomic groups at the same period of time or over time, has an important role; with record linkage, it may be possible to estimate incidence and prevalence of some conditions, although this is subject to several important limitations;

- in preventive medicine, where morbidity data may provide clues to the etiology of disease and form the basis for evaluation of preventive measures;

- in surveillance of "sentinel" conditions of general importance or important in a particular area or at a particular time;

- in planning and management of health services for resource allocation, reimbursement, and monitoring and evaluation of health care utilization. The analysis of patterns and trends in disease and the use of health service facilities may contribute to the planning and development of medical education and health service manpower.

Whatever the application, all data need careful interpretation and it should be recognized that they have limitations as indicators of total "morbidity".

2. ROUTINE SINGLE-CAUSE ANALYSIS OF CAUSES OF MORBIDITY

2.1 Definitions

Many of the analyses described above are, particularly in relation to reimbursement, of an ad hoc or special nature, and rules for the recording of data and the presentation of statistics have to be developed locally.

Routine single-cause analysis of data derived from surveys should be based on the condition mainly responsible for the relevant episode of illness.

An "episode of health care" refers to a period of hospital or other in-patient care or to a series of contacts with a health care practitioner in relation to the same condition or its immediate consequences. Sometimes administrative considerations may determine what is regarded as an episode of health care. It is therefore important that the criteria adopted in defining what is meant by an "episode" be explicitly stated in presentation of the statistics.

The condition to be used for single-cause analysis of episodes of health care is the "main condition" treated or investigated during the relevant episode.

The MAIN CONDITION is defined as the diagnosis, established at the end of the episode of health care, of the condition primarily responsible for the patient receiving treatment or being investigated. If there is more than one such condition, the one which was responsible for the greatest use of resources should be selected. If no diagnosis was made, the main symptom, abnormal finding or problem should be selected as the main condition.

The record used for statistical analysis should, where practicable, also include, separately, "other conditions" or problems dealt with during the relevant episode of health care.

OTHER CONDITIONS are defined as those which co-exist or develop during the episode of health care and affect the management of the patient. Conditions that relate to an earlier episode and which have no bearing on the current episode of health care should not be recorded.

The limitation of analysis to a single cause per episode necessarily involves a loss of information and it is recommended that, where practicable, multiple-condition coding and analysis be undertaken to supplement routine data. This should be done according to local rules, since no international rules have been recommended. However, some suggestions are included below about useful additional codes in particular situations where a single code is not adequate to represent fully the selected condition.

2.2 Guidelines for recording diagnostic information

General

The diagnoses in relation to the relevant episode of health care should be determined, and the "main condition" selected, by the health care practitioner responsible for the patient's treatment.

It is important that adequate health care record systems be provided in which the information is organized systematically and standard recording methods are used, thus allowing the responsible health care practitioner to indicate clearly his assessment of the "main condition" and "other condition" for each episode of health care.
A properly-completed record is an essential tool in patient-management and also provides a valuable source of epidemiological and other statistical data on morbidity and other health care problems.

Specificity and detail

Each diagnostic label should be as informative as possible and should include whatever detail is available about the site, variety, etiology, etc. of the condition, to allow a good patient-management and at the same time a classification to the most specific ICD category. Examples of such diagnostic statements are shown below:

- transitional cell carcinoma of trigone of bladder;
- acute perforated appendicitis;
- diabetic cataract;
- meningococcal pericarditis;
- antenatal care for pregnancy-induced hypertension;
- diplopia due to allergic reaction to antihistamine taken as prescribed;
- osteoarthritis of hip due to an old hip fracture;
- fracture of neck of femur;
- third-degree burn of hand.

Uncertain diagnoses or symptoms

If, and only if, no definite diagnosis has been established by the end of an episode of health care, that information should be recorded which permits the greatest degree of specifity and knowledge about the condition which necessitated care or investigation. This should be in the form of stating a symptom, abnormal finding or problem, rather than qualifying a diagnosis as "possible", "questionable" or "suspected" when it has been considered but not established.

Non-illness situations

Episodes of health care or contact with health services are not restricted to the treatment or investigation of current illness or injury. When persons who are not currently sick or who have no condition classifiable to Chapters I-XIX encounter the health care system, details of the relevant circumstances should be recorded as the "main condition".

Examples of such reasons for contact are:

- monitoring of previously treated conditions;
- immunization;
- surveillance of persons at risk because of certain personal or family history;
- examinations of healthy persons for, e.g. insurance or occupational reasons;
- seeking of health-related advice;
- requests for advice by persons with social problems;
- consultation on behalf of a third party.

Chapter XXI (Factors influencing health status and contact with health services) provides a broad range of categories (Z00-Z98) for classifying these circumstances; reference to this chapter will give an idea of the detail required to permit classification to the most relevant category.

Multiple conditions

Where an episode of health care is directed at multiple related conditions, for example, multiple injuries, multiple sequelae of a previous illness or injury, or multiple conditions occurring in Human immunodeficiency virus [HIV] disease, and one of them is clearly more severe and resource-intensive than the others, that one should be recorded as the "main condition" and the others recorded as "other conditions". Where no one condition predominates in the use of resources, a term such as "multiple fractures", "multiple head injuries" or "HIV disease with multiple infections" may be recorded as the "main condition", followed by a list of the conditions. Only if this is impracticable because of the number of such conditions should a term such as "multiple injuries", or "multiple crushing injuries" be recorded alone. Categories are provided in ICD for coding "Multiple ... " where necessary.

Conditions due to external causes

Chapter XX (External causes of morbidity and mortality) permits the classification of external causes of morbidity. When a condition such as an injury, poisoning or an other effect of external causes is recorded, it is important to describe fully both the nature of the condition and the circumstances which gave rise to it. Examples are: "fracture of neck of femur caused by fall due to slipping on greasy pavement"; "cerebral contusion caused when patient lost control of car, which hit a tree"; "accidental poisoning - patient drank disinfectant in mistake for soft drink"; "severe hypothermia - patient fell in her garden in cold weather".

Dual classification system ("dagger and asterisk" system)

The ICD provides a dual classification system (dagger (+) codes and asterisk (*) codes) for coding diagnostic statements which combine information about an underlying disease and a complication or manifestation in a particular organ or site. Where conditions linked in this way are the main reason for treatment or investigation, both elements should be included in the description of the "main condition", to allow the ICD coding to represent the situation fully. Examples of such descriptions are: "Tuberculous pericarditis", "Diabetic cataract", "Meningitis in infectious mononucleosis". Reference to the ICD manual will give an idea of the kind of conditions which the classification links in this way.

Treatment for sequelae of pre-existing conditions

Where an episode of care is for treatment or investigation directed to a residual condition (a "sequela") of a disease that is no longer present, the nature of the sequela should be fully described and its origin stated, together with a clear indication that the original disease is no longer present. Examples are: "Deflected nasal septum - fracture of nose in childhood", "Contracture of Achilles tendon - late effect of injury to tendon", "Infertility due to tubal occlusion from old tuberculosis".

Where multiple sequelae are present and treatment or investigation is not directed predominantly at one of them, a statement such as "Sequelae of cerebrovascular accident" or "Sequelae of multiple fractures" is acceptable.

2.3 Guidelines for coding of "main condition"

General

The determination of the "main condition" and "other conditions" relevant to an episode of health care should have been done by the responsible health care practitioner, and coding is therefore usually straightforward, since the "main condition" indicated as such should be accepted for coding and processing unless it is obvious by reference to other data being coded that the health care practitioner has not understood or followed the guidelines provided in section 2.2. Whenever possible, a record with an obviously inconsistent or incorrectly recorded "main condition" should be returned to the responsible health care practitioner for clarification. Failing clarification, Rules MB1 to MB5 are provided to deal with the more frequent varieties of incorrect recording which the coder may encounter.

Once the "main condition" is determined, its ICD code should be assigned following normal procedures. In most cases this is straightforward, but guidelines are provided below for assignment in certain situations in which the coder may be unclear as to the appropriate code.

It has been recommended that "other conditions" in relation to an episode of care are recorded in addition to the "main condition" even when single-cause analysis only is to be performed. This also provides the coder with a full picture of the circumstances which may assist in the assignment of the correct ICD code for the "main condition".

Optional additional codes

In the guidelines below, a preferred code for "main diagnosis" is sometimes indicated, together with an optional additional code which may elaborate the situation. The preferred code is that to be used for the "main condition" for single-cause analysis and the additional code may be included, if wished, in the codes subjected to multiple-cause analysis.

Examples: ...

Coding of conditions to which the dagger and asterisk system applies

For diagnostic statements to which the dagger and asterisk system applies, both "dagger" and "asterisk" codes should be used for coding the "main condition", since they are alternatives permitting different kinds of single-cause analysis. (See Introduction to the Manual, pages ...). If it is not possible to use more than one code, the dagger code should be used, as this is the "traditional" ICD code for epidemiological purposes.

Examples: ...

Coding of suspected conditions, symptoms and abnormal findings, and non-illness situations

The coder should in general be wary of coding as the "main condition" conditions classifiable to Chapters XVIII and XXI if the episode of health care relates to a stay as an in-patient. If, but only if, it is apparent that no more specific diagnosis was formulated by the end of the in-patient stay, or that the in-patient care was genuinely that of a patient with no codable current illness or injury, codes from these chapters are perfectly acceptable. (See also Rules MB3 and MB5, pages and). For other types of episode of contact with health services, the categories are often acceptable without question.

recorded as "suspected ..." "questionable", etc., and other relevant information and clarification is not available or possible, the diagnosis must be coded as if it existed.

A category, Z04.-, is provided in ICD for coding certain conditions which were originally suspected but have been ruled out after study.

Examples: ...

Coding of multiple conditions

Where multiple conditions are recorded for which the ICD provides a category entitled "Multiple ..." and no single one of them is indicated as, or can be assumed to be, the condition to which treatment was predominantly directed, the code for the category or subcategory entitled "Multiple ..." should be used as the preferred code, and codes for any individual conditions listed should be added as optional additional codes.

This applies mainly to conditions associated with HIV disease, to injuries and sequelae. See the chapter-specific notes (section 2.5) for further explanation of coding.

Coding of combinations of conditions

The ICD provides certain categories where two conditions or a condition and an associated secondary process can be represented by a single code. Such combination categories should be used as the "main condition" where appropriate information is recorded. The Alphabetical Index indicates where such combinations are provided for, under the indent "with", which appears immediately after the lead term. Two or more conditions recorded under "main condition" may be linked if one of them may be regarded as an adjectival modifier of the other.

Examples: ...

Coding of external causes of morbidity

It is recommended that for injuries and other conditions due to external causes, both the nature of the condition and the circumstances of the external cause are to be coded. The preferred "main condition" code should be that for the nature of the condition. This will usually be classifiable to Chapter XIX, but will sometimes be in one of the other chapters. The code from Chapter XX indicating the external cause should be used as an optional additional code.

Examples: ...

Coding of sequelae of certain conditions

The ICD provides a number of categories entitled "Sequelae of ..." (B90-B94, E64, E68, G09, I69, O97, T90-T98, Y85-Y89) which may be used to indicate conditions not now present as the cause of a current problem undergoing treatment or investigation. The preferred code for the "main condition" is, however, the code for the nature of the sequela itself, to which the code for "Sequelae of ..." may be added as an optional additional code.

Where a number of different very specific sequelae is present, and treatment of no one of them predominates in severity and use of resources, it is permissible for the description "Sequelae of ..." to be recorded as the "main condition", and this may then be coded to the appropriate category. Note that it is sufficient that the causal condition be described as "old", "no longer present", etc. or that the resulting condition be described as "late effect of ...", or "sequela of ..." for this to apply. There is no minimum time interval.

Examples: ...

Where the "main condition" is recorded as being both acute (or subacute) and chronic, and ICD-10 provides separate categories or subcategories for each, the category for the acute condition should be used as the preferred "main condition".

Examples: ...

2.4 Rules for reselection when the "main condition" is obviously incorrectly recorded

As previously emphasized, it is the responsible health care practitioner who should indicate his selection of "main diagnosis" to be coded and this should normally be accepted for coding, subject to the guidelines above and in the chapter-specific notes in section 2.5.

However, certain circumstances or the availability of other information may indicate that the health care practitioner has not understood or not followed the advice on what was required. If it is not possible to obtain clarification from the health-care practitioner, one of the following rules may be applied and the "main condition" reselected.

Rule MB1. Minor condition recorded as "main condition", more significant condition recorded as "other condition"

Where a minor or long-standing condition or an incidental problem is recorded as the "main condition", and a more significant condition, relevant to the treatment given and/or the speciality which cared for the patient, is recorded as an "other condition", reselect the latter as the "main condition".

Examples: ...

Rule MB2. Several conditions recorded as "main condition"

If several conditions which cannot be coded jointly are recorded as the "main condition" and other details on the record point to one of them as being the "main condition" for which the patient received care, select that condition. Otherwise select the first mentioned.
Note: See paragraphs ... page ... on the use of "combination" and "multiple" codes.

Examples: ...

Rule MB3. Condition recorded as "main condition" is the presenting symptom of diagnosed treated condition

If a symptom or sign (usually classifiable to Chapter XVIII), or a problem classifiable to Chapter XXI, is recorded as the "main condition", and this is obviously the presenting sign, symptom or problem of a diagnosed condition recorded elsewhere, and care was given for the latter, reselect the diagnosed condition as the "main condition".

Examples: ...

Rule MB4. Specificity

Where the diagnosis recorded as the "main condition" describes a condition in general terms, and a term which provides more precise information about the site or nature of the condition is recorded elsewhere, reselect the latter as the "main condition".

Examples: ...

Rule MB5. Alternative main diagnoses

Where a symptom or sign is recorded as the "main condition" with an indication that it may be due to either one condition or another, select the symptom as the "main condition".

Where two or more conditions are recorded as diagnostic options for the "main condition", select the first condition recorded.

Examples: ...

2.5 Chapter-specific notes

Guidance is provided below for specific chapters, where problems may be encountered in coding preferred and optional additional "main condition" codes. The preceding general guidelines and rules apply to all chapters, unless a specific chapter note states otherwise.

CHAPTER I: CERTAIN INFECTIOUS AND PARASITIC DISEASES

B20-B24 - Human immunodeficiency virus [HIV] disease

Categories and subcategories are provided for HIV disease with various other accompanying diseases. It is not uncommon for a patient with HIV disease to be treated during the same episode of care for more than one of these accompanying diseases, for example mycobacterial and cytomegalovirus infections. Code the "main condition" for that episode as selected by the health care practitioner to the appropriate subcategory.

Where the "main condition" has been recorded as HIV disease with multiple accompanying diseases, the appropriate .7 subcategory from B20-B22 should be coded, and additional codes used, if desired, to specify individual conditions listed.

Examples: ...

B95-B98 - Bacterial, viral and other infectious agents

Not to be used as "main condition" codes. These categories are provided for optional use as additional codes to identify the infectious agent or organism in diseases classified outside Chapter I. Infections of unspecified site due to these agents are classified elsewhere in Chapter I.

Examples: ...

A neoplasm, whether of primary or metastatic site, which is the focus of care during a relevant episode of health care should be recorded and coded as the "main condition". When the "main condition" as recorded by the health care practitioner is a primary neoplasm which is no longer present (having been removed during a previous episode of care) code as the "main condition" the neoplasm of secondary site, the current complication, or the appropriate set of circumstances from Chapter XXI (see page) which was the focus of treatment or investigation during the current episode of care.

Examples: ...

C80 - Malignant neoplasm without specification of site and C97 Malignant neoplasms of independent (primary) multiple sites

C80 and C97 should only be used for "main condition" coding when the health-care practitioner has clearly recorded the neoplasms in such a manner.

Examples: ...

CHAPTER III: DISEASES OF BLOOD AND BLOOD-FORMING ORGANS AND CERTAIN DISORDERS INVOLVING THE IMMUNE MECHANISM

Certain conditions classifiable to this chapter may result from drugs or other external causes. Codes from Chapter XX may be used as optional additional codes.

Examples: ...

CHAPTER IV: ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES

Certain conditions classifiable to this chapter may result from drugs or other external causes. Codes from Chapter XX may be used as optional additional codes.

Examples: ...

E10-E14 - Diabetes mellitus

In coding the "main condition", the selection of an appropriate subcategory from the list which applies to all of these categories should be based on the "main condition" as recorded by the health care practitioner. Subcategory .7 should only be used as the "main condition" code when multiple complications without a special preference of diabetes have been recorded as the "main condition".

Examples: ...

CHAPTER V: MENTAL AND BEHAVIOURAL DISORDERS

The definitions of categories and subcategories in this chapter are provided to assist the health care practitioner in establishing diagnostic labels; they should not be used by coders. The "main condition" code should be assigned on the basis of the diagnosis as recorded by the practitioner, even if there appears to be a conflict between the conditions described and the category title. In some categories, there is provision for optional additional codes to be used.

Certain conditions classifiable to this chapter may result from drugs or other external causes. Codes from Chapter XX may be used as optional additional codes.

G81-G83 - Paralytic syndromes

Not to be used as the preferred code for the "main condition" if a current case is recorded, unless the episode of care was directed predominantly at the paralysis itself. When coding to the cause, G81-G83 may be used as optional additional codes.

CHAPTER VII: DISEASES OF THE EYE AND ADNEXA

H54 - Blindness and low vision

Not to be used as the preferred code for the "main condition" if the cause is recorded, unless the episode of care was directed predominantly at the blindness itself. When coding to the cause, H54 may be used as an optional additional code.

CHAPTER VIII: DISEASES OF THE EAR AND MASTOID PROCESS

H90, H91 - Hearing loss

Not to be used as the preferred code for the "main condition" if the cause is recorded, unless the episode of care was directed predominantly at the hearing loss itself. When coding to the cause, H90 or H91 may be used as optional additional codes.

CHAPTER IX: DISEASES OF THE CIRCULATORY SYSTEM

I15 (Secondary hypertension)

Not to be used for coding "main condition" if the cause is recorded, unless the episode of care was predominantly directed at the hypertension. When coding to the cause, I15 may be used as an optional additional code.

CHAPTER XIV: DISEASES OF THE GENITOURINARY SYSTEM

N47, N97 - Infertility

Not to be used for coding "main condition" if a current cause is recorded, unless the episode of care was predominantly directed at the infertility. When coding to the cause, N47 or N97 may be used as an optional additional code.

CHAPTER XV: PREGNANCY, CHILDBIRTH AND PUERPERIUM

O08 - Complications following abortion, ectopic and molar pregnancy

Not to be used as code for "main condition", except where a patient undergoes a new episode of care for treatment of a complication, for example, for a current complication of an abortion (O03-O07) which was the subject of a previous episode. May be used as optional additional code with categories O03-O07 and with categories O00-O02 to identify associated complications.

Note that the inclusion terms provided at the subcategories of O08 should be referred to when assigning the fourth-character subcategories of O03-O07.

O81-O84 - Method of delivery

Not to be used as "main condition" codes, unless no other condition classifiable in Chapter XV is recorded by the health care practitioner. May be used as optional, additional codes if tabulation of the method of delivery is desired and there is no separate data item indicating method of delivery.

O97 - Sequelae of direct obstetric causes

Not to be used as preferred "main condition" code if the nature of the residual condition is recorded. When coding to the residual condition, O97 may be used as an optional additional code.

O98-O99 - Maternal diseases classifiable elsewhere but complicating pregnancy, labour and delivery, and the puerperium

The subcategories provided should be used as "main condition" codes in preference to categories outside Chapter XV when the conditions being classified have been indicated by the health care practitioner to have complicated the pregnant state, to have been aggravated by the pregnancy, or to have been the reason for obstetric care. The respective codes from other chapters may be used as optional additional codes to provide specificity of the condition.

CHAPTER XVIII: SYMPTOMS, SIGNS AND ABNORMAL CLINICAL AND LABORATORY FINDINGS NOT ELSEWHERE CLASSIFIED

Categories from this chapter should not be used as "main condition" codes unless the symptom, sign or abnormal finding was clearly the "main condition" treated or investigated during an episode of care and was unrelated to other conditions recorded by the health care practitioner. See also Rule MB3, page .

CHAPTER XIX: INJURY, POISONING AND CERTAIN OTHER CONSEQUENCES OF EXTERNAL CAUSES

Where multiple injuries are recorded and no one of these has been selected as the "main condition" by the responsible health care practitioner, code to one of the categories provided for statements of multiple injuries of:

- same type to the same body region (usually 4th character .7 in categories S00-S99);
- different types to the same body region (usually 4th character or .0 or .7 in the last category of each block, i.e. S09, S19, S29 etc.);
- same type to different body regions (T00-T06).

This suffers with the following exceptions:

- internal injuries recorded with superficial injuries and/or open wounds only - code to internal injuries as the "main condition";
- intracranial haemorrhage recorded with other injuries to the head only - code to "intracranial haemorrhage" as the "main condition";
- fractures recorded with open wounds of the same location only - code to "fracture" as the "main condition".

When the "multiple injury" categories are used, codes for any individual injuries listed may be used as optional additional codes.

CHAPTER XX: EXTERNAL CAUSES OF MORBIDITY AND MORTALITY

Not to be used as "main condition" codes. Intended to be used as optional additional codes to identify the external cause of conditions classified in Chapter XIX or elsewhere.

CHAPTER XXI: FACTORS INFLUENCING HEALTH STATUS AND CONTACT WITH HEALTH SERVICES

To be used as "main condition" codes only when circumstances other than a current illness necessitate an episode of health care. The list of blocks at the beginning of the chapter provides an indication of the types of circumstances included. It should be noted that use of this chapter will vary between localities, depending on the nature of the health care system, and comparisons may be difficult. For in-patient episodes, few of the categories are likely to be appropriate as a "main condition" code.

For episodes of care for follow-up of a previous illness, code the "main condition" to an appropriate subcategory of Z08-Z09. Where there is no appropriate subcategory, code to "Personal history of ... (the disease)" (Z85-Z87).

= = =

WORLD HEALTH ORGANIZATION

ORGANISATION MONDIALE DE LA SANTE

DISTR. : LIMITED
DISTR. : LIMITEE

WHO/ICD10/REV.CONF/89.15

ORIGINAL : ENGLISH

INTERNATIONAL CONFERENCE FOR THE
TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

THE FAMILY OF DISEASE AND HEALTH RELATED CLASSIFICATIONS

by

Dr K. Kupka

INTRODUCTION

The International Classification of Diseases (ICD), under different names and changing auspices, has undergone nine decennial revisions to reflect advances in medical knowledge and changing emphases in Public Health.

An additional five years have been allowed for the Tenth Revision to cope with major changes in its format and structure, to accommodate the content, and to solve several problems that had been identified in the existing classification.

PROBLEMS

(a) ICD was, from its origin until the Sixth Revision in 1948, used only for mortality statistics. Over the years its uses expanded to cover the whole spectrum of health data.

It is presently used to compile statistics on underlying causes of death, multiple causes of death, hospital and ambulatory care morbidity, and for epidemiological research, hospital indexing of medical records, medical audit systems, planning and evaluation of health services and finally economics: social security, health insurance, health cost and reimbursement for care services. ICD also serves the Health Administration - preventive as well as curative - in the planning, management and evaluation of services and its use is an essential basis of many fields of research.

Some of these uses started very soon after the introduction of the Sixth Revision, some during use of the Eighth Revision in the late sixties, and others since the Ninth Revision in the late seventies.

(b) The degree of detail required from ICD varies over a very wide range of users, from rather simple community-based schemes like lay reporting or short lists for international reporting to very sophisticated and detailed classifications required by specialists, where even five and six character classifications often appear insufficient to provide all the information asked for. In addition, many countries do not necessarily have the necessary capacity and interest to cope with the current problems. This fact must be considered very seriously and receive an adequate solution.

(c) The periodic revisions of ICD modify its organisation and structure and result in changes to the numbering system and also in the content of categories. Furthermore, the revisions may have a deleterious influence on the comparability of data in studies over long periods. When the available space in the classification is unable to absorb new additional categories, changes to the content of many rubrics may make the studies of trends impossible.

The long process of obtaining the consensus of the international community and the large amount of work involved is very costly to prepare and implement, not only to WHO bu also to Member States and other interested groups.

(d) All of these problems, unforeseen uses, requests for varying degrees of detail, the frequency and scope of revisions, led to a new concept in classification. It became clea that no single classification scheme could solve all of the problems at hand and give equal satisfaction to all users for all uses at all times.

HISTORY OF THE CONCEPT FOR ICD-10

Experience has shown that if the ICD is not a perfect tool, and is subject to criticism because it is unable to respond equally to all, it remains definitely the best one in the field. Its durability as well as persistent and increasing uses testify to this. Many have successfully attempted to produce different schemes; this is a relativel easy task, but all efforts have failed to produce a better tool, accepted by the international community and able to replace the one we have - the ICD.

WHO realized very early in the Ninth Revision process which culminated in 1975, that some major changes had to take place and that not the ICD alone but a series of additiona classifications were needed to solve the above problems in the Tenth Revision.[1]

Since the late seventies therefore, various possible solutions have been envisaged, among which was a core classification (ICD) connected to a series of modules, each hierarchically structured and having a specific purpose and area of application.

After studies and discussions in cooperation with the various WHO Collaborating Centres for Classification of Diseases, a scheme elaborated around a core or simplified base classification was proposed at the Preparatory Meeting on ICD-10 held in Geneva in September 1983.[2]

The core classification was intended to be appropriate to all, regardless of the degree of development, its structure making it possible to expand or reduce the number of categories according to need. It was to be connected to a large family of related classifications to which the core would form a common base.

With only minor modifications, the proposal was subsequently endorsed at the meeting of the Expert Committee on ICD-10 held in Geneva in 1987.[3]

CONCEPT OF THE FAMILY OF CLASSIFICATIONS

This concept brings in two major changes:

- A change from the traditional numeric coding system to an alphanumeric one - more than doubling the available space for future additions and modifications. This proposal makes changes in the numbers of individual rubrics unnecessary in revisions to come and maintains the consistency of the content of rubrics in a more satisfactory manner.

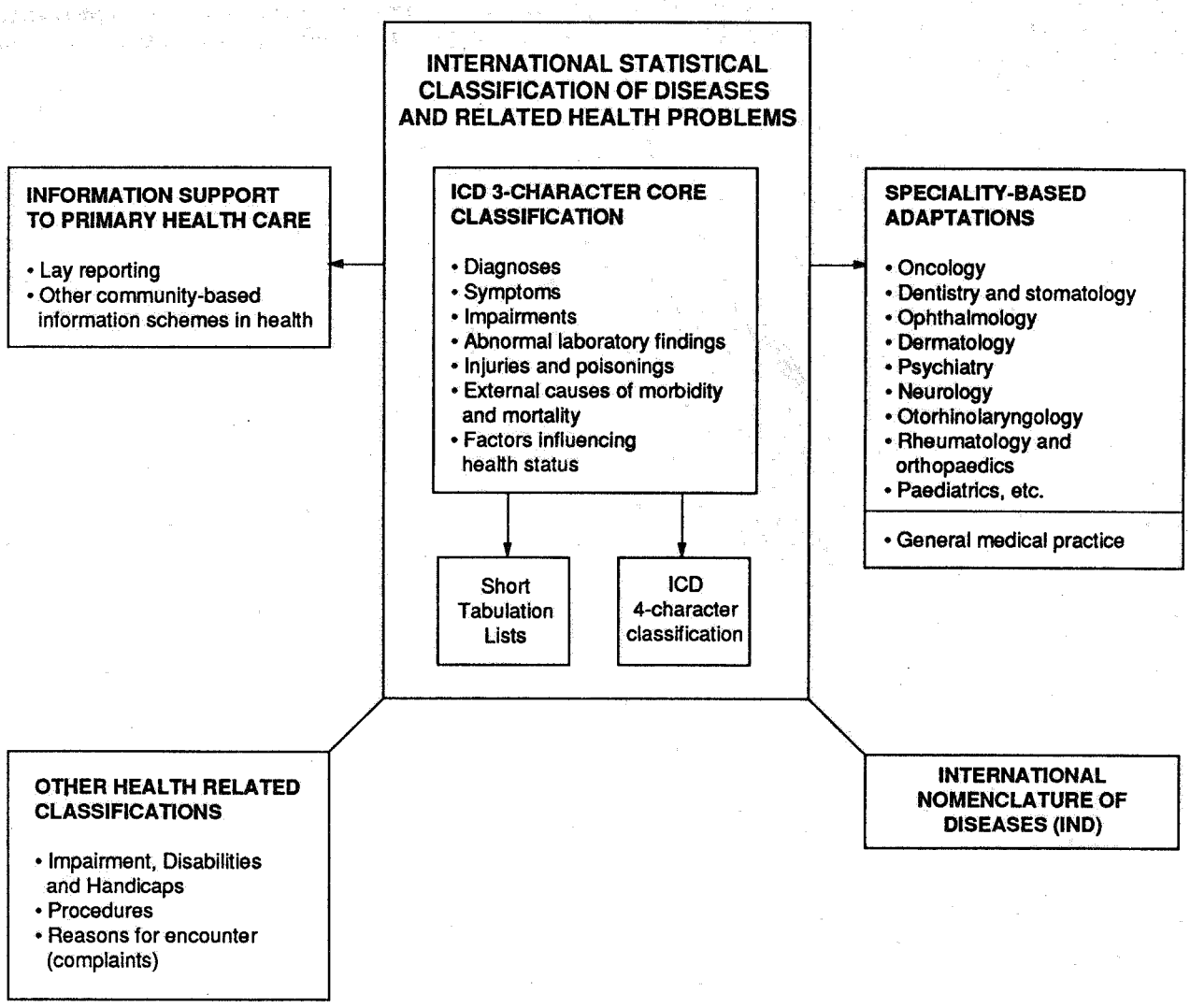
- A shift from one single classification to a concept of a family where a core is surrounded by a series of supplementary classifications more or less closely interrelated and each serving a specific purpose.

As in any family, the definition may be more or less comprehensive and its membership may range from "blood-related" members to far more remote relatives "by marriage" or even to simple acquaintance.

STRUCTURE AND CONTENT OF THE FAMILY OF DISEASE AND HEALTH RELATED CLASSIFICATIONS

The proposed scheme is presented below:

FAMILY OF DISEASE AND HEALTH RELATED CLASSIFICATIONS



Each member of the family has a more or less remote relationship to the "CORE CLASSIFICATION", each is designed in a hierarchical way and is therefore collapsible or extendable to other meaningful groupings - compatible with the required degree of detail. The family is composed of:

(a) ICD which contains a series of very closely "blood-related" classifications:

- ICD three-character core representing the basic and main body of the classification. This "core" represents the minimum level of international comparability. It is the only mandatory one at the international level and often the only one used because of limited interest and ability.

  For this reason it includes not only all diagnoses, but also a whole range of items like symptoms, impairments, abnormal findings, injuries and poisonings as well as external factors affecting health and non-medical reasons for contact with health services. In the past these were included in the supplementary classifications, "E" and "V" codes.

- ICD four-character classification resulting from the systematic subdivision of the three-character categories to offer a greater degree of specificity and to give satisfaction to more sophisticated users and more detailed uses.

  It is intended to cover the needs in the traditional fields of mortality and morbidity and as much as possible in other - present and future - applications in related areas.

- Short tabulation lists, obtained by the selection of some individual three-character categories and the systematic grouping of other three-character categories of the CORE classification.

  The short tabulation lists are only mandatory for statistics of mortality - the traditional main field of the ICD - but in many countries they are equally used for morbidity reporting. As in the past they are essential for the standardization and comparability of data.

The three-character core, the four-character classification and the short tabulation lists are an integral part of the ICD and are totally compatible with one another. In constructing these classifications and lists, the WHO secretariat benefited greatly from collaboration with various specialities, represented by non-governmental organizations (NGOs).

The categories at each level of detail had to be carefully structured so as to allow further extensions at the fifth-character level and beyond and to maintain the maximum of consistency.

(b) International Nomenclature of Diseases (IND), which should be, at least in theory, the basis of the classification of diseases.

At the beginning of the century the title of what eventually became the "ICD" was the "International Nomenclature" of which the main aim was to promulgate a uniform nomenclature - list of approved terms - in the field of mortality. The subsequent shift from the idea of a nomenclature to a statistical classification has been shown by the change of the title during the Sixth Revision in 1948.[4]

In 1970, the Council for International Organizations of Medical Sciences (CIOMS) began work on the International Nomenclature of Diseases in the hope of improving communications in the health field. Because of various factors and the extreme complexity of the tasks undertaken, the work is far from being completed in English, not to mention other languages.[5]

Revisions of the ICD should reflect the agreed international nomenclature when available, even in part, in the text and promote its use. However, it must not be forgotten that ICD and IND have a very different role to play. A nomenclature requires extreme specificity, completeness and flexibility, while a classification, as the name indicates, relies on a limited number of categories of identical or similar entities as well as on residual categories, sometimes of a very heterogeneous nature consisting of groupings of less important entities ("others"). Such groupings - however justified - result in a loss of specificity.

(c) Specialty-based adaptations represent another degree of relationship with the main body of the ICD.

Among the first adaptations to appear, one must mention a modification of ICD8A oriented towards hospital morbidity (a version of the Eighth Revision adapted for use in the United States) published in 1968 for hospital purposes and the evaluation of health care under the title of Hospital Adaptation of ICDA (H-ICDA).[6]

This went some way to meet the requirement of various clinical specialties in the search for greater detail, detail not obtainable with the ICD-8. The ICD-DA [7] was also conceived at about the same time for dentistry and stomatology.

Many other specialty adaptations were subsequently created in the Seventies when ICD-9 was published, and in the Eighties. These included adaptations for oncology [8], ophthalmology, neurology, rheumatology and orthopaedics, and dermatology.

These specialty-based adaptations were produced mainly thanks to a very close collaboration between NGOs, WHO Divisions and Units, other agencies and the then ICD Unit, the latter mainly assuming a coordinating role and providing guidance and advice. All the adaptations exhibit similar characteristics in their structure and hierarchy resulting from the subdivision of groups existing in the ICD and allowing further subdivisions to provide meaningful extensions. There must exist others which are not known to WHO due to the fact that the copyright notice was omitted from Volume 1 of ICD-9 and this encouraged some to elaborate adaptations without the Organization being informed.

(d) General medical practice represents still another problem area.

The problems relevant to this field are often worded differently and any classification necessarily relies to a greater extent on traditional residual categories, symptoms, signs and complaints, and reasons for contact with health services. An adaptation for this purpose does not necessarily always require greater detail in the same manner as the above-mentioned adaptations and the relative importance of the problems encountered and their different nature require a different approach in different groupings and extensions.

One such adaptation - the International Classification of Health Problems in Primary Care (ICHPPC) dates back to 1975 and was conceived by the World Organization of National Colleges, Academies and Academic Associations of General Practitioners/Family Physicians (WONCA). It was revised in 1979 to conform to the newly published Ninth Revision of the ICD and to ensure direct comparability with it under the name of ICHPPC-2. In 1983 the classification was revised again, with the text supplemented by definitions - under the title ICHPPC-2-Defined.

(e) Information support to Primary Health Care

Classifications for Community-based schemes, such as Lay Reporting of Health Information, have yet another relationship as a family member. [9]

This was designed for the collection and presentation of local data, in particular situations, without particular concern about international comparability. It stems from the pioneering work in the 1950s in the collection of causes of death by non-medical personnel.[10]

In many parts of the world the lack of qualified medical personnel is a major reason for the absence of data needed by health administrations. WHO has undertaken several activities in this field since 1971. The International Conference for the Ninth Revision of the ICD acknowledged this effort and recommended further development of methods using lay or paramedical personnel.

In 1978, Lay Reporting of Health Information was published, thanks mainly to the interest and support of the WHO Regional Office for South-East Asia. This publication had been the subject of extensive field trials in many countries of several regions. With the advent of Primary Health Care as a concept at about the same time, the system was modified to facilitate the work of health administrations based on Primary Health Care in obtaining information on epidemiology and prevention. It is not a classification as such, but rather a model which needs adaptation and modification to fit local circumstances in data collection. A system developed for one area cannot be just copied for another, each region having different health problems and priorities.

The relevance of the scheme is mainly local, or sometimes regional, for immediate analysis. It is very simple in structure, the contents being limited to essential conditions according to frequency, severity and cost to the community. About twenty groups of conditions described in simple local terms are based on associations of main symptoms with additional manifestations. The minimal lists for mortality (30 items) and morbidity (48 items) are also included, as is an alphabetical index. The scheme has been adopted and adapted by a number of member states with very encouraging results.

It should, however, be remembered that there is a very low level of comparability with the ICD and analysis should preferably be done separately for each group of data.

(f) Other health related classifications include:

- Impairments, Disabilities and Handicaps. At the time of the Ninth Revision, WHO produced a data collection and coding scheme (rather than a classification, in spite of its name), for experimental use.[11] One of the merits of the classification is that it seeks to establish, for international acceptance and use, uniform definitions of the terminology used - and often confused and misused - in the field of rehabilitation. Tested in a series of countries, it has been widely discussed and reviewed, and versions have been published in a dozen languages in addition to the original English. Despite some difficulties and differences of opinion - such as are normal in an international forum - it has proved its usefulness and will be revised by WHO in the light of experience gained.

- Procedures in medicine. This classification, which had been requested many times over several decades, was finally published during the Ninth Revision for experimental use.[12] As a companion to ICD, but not part of it, it contains the therapeutic, diagnostic and prophylactic procedures in surgery and other fields of medicine.

  Great difficulties were encountered because of the existence of several national classifications, problems of adequate updates in this fast moving field, and the necessarily slow consultation process in achieving international agreement. The current text will therefore not be subject to revision, but those chapters necessary to facilitate essential comparisons in the provision of care will be abstracted and updated and become part of the family of classifications.

- Reasons for encounter.[13] These reasons, as expressed by the patients themselves during a first contact with health personnel, are likely to be formulated in a somewhat different way than the reasons stated by the attending physician. The medical terminology being already included in the main body of the ICD, this particular classification was intended mainly for assessment and research in the diagnostic field and the qualitative measurement of the load on diagnostic services.

  A great amount of work has been put into this task under the sponsorship and with the collaboration of the United States Public Health Service during the past several years. Additional work is needed to clarify the main objectives of its use and finalize the existing draft for publication.

POSSIBLE GROWTH OF THE FAMILY

There are additional health-related classifications which might form part of the family in the future. Some have been suggested previously, such as:

- Classification of occupational diseases and industrial accidents
  In view of the great variation in national legislation and definitions, this frequently asked for classification is at present facing practically insoluble problems at the international level. These could possibly be overcome at the country level, by providing an additional character to the code for the disease or the circumstances of the accident.

- Classification of health status. The need for such a classification has been expressed in the past, but no clear statement as to the intended use, definitions, or gradient of involvement have been formulated. This difficult task remains to be tackled.

- Classification of diagnostic criteria and values, to supplement the present ICD which in most instances disregards the differences in diagnostic values.

- Classification of health and health-related facilities

- Classification of laboratory results

- Classification of the outcome of disease - evolution and outcome as a result of therapy or in the absence of any therapeutic intervention.

This list is far from being exhaustive more often than not, specific studies and objectives will need another "ad hoc" additional classification.

SUMMARY AND RECOMMENDATIONS

The concept of a family of related classifications appears to be at present the best solution to preserve the usefulness of the ICD. ICD is needed not only for international comparability but for national purposes as well as being essential in the field of health statistical systems in general in all countries, whatever the degree of development.[14]

Even the best conceived family of classifications will sooner or later face the impossibility of covering all future, and possibly unforeseen, needs, developments and problems. As in the past, so in the future, WHO will have to cope with a variety of often contradictory requests.

As to the future revisions they will be facilitated by the new structure of ICD-10 which provides space for possible extension and because of the existence of the family of classifications, the different components can be revised with different periodicity and at different times allowing for better distribution of work load and resources.

with problems of this magnitude. In view of its economic situation and limited human resources, it will have to limit itself to the revision problems. For various new classifications, adaptations and extensions, it will have to rely increasingly on the collaboration of different extra-organizational resources from the international community, whilst assuming a role of cooperative leadership and acting as a clearinghouse, providing technical guidance and support when needed. Overlap and replication of work would be avoided by a coordinated approach in the development of the various components.

In addition WHO will have to play the major role in the elaboration and promotion of the definitions and terminology used in the ICD field. Last but not least, it is to assist Member States in the elaboration of national versions and the introduction of the schemes by organizing training courses and making available the necessary teaching material.[15]

There is no doubt that WHO will, as it has in the past, assume this constitutional obligation and privilege to the best of its ability.

References

1. Kupka, K. (1978) International Classification of Diseases: Ninth Revision, WHO Chronicle, 32 : 219-225

2. World Health Organization, Report of Preparatory Meeting on ICD-10, Geneva, 12-16 September 1983, unpublished document No. DES/ICD-10/83.19

3. World Health Organization, Report of Expert Committee on the International Classification of Diseases - 10th Revision, Second meeting, Geneva, 23 to 27 November 1987, unpublished document No. WHO/DES/EC/ICD-10/87.38

4. World Health Organization (1948) Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death

5. Bankowski, Z., (1989) International Nomenclature of Diseases, unpublished document No WHO/ICD10/REV.CONF/89.6

6. Hospital Adaptation of ICD-A (H-ICDA) (1968) Commission on Professional and Hospital Activities, Ann Arbor, Michigan

7. World Health Organization (1973) Application of the International Classification of Diseases to Dentistry and Stomatology

8. World Health Organization (1976) International Classification of Diseases for Oncolog (ICD-0)

9. World Health Organization (1978) Lay reporting of health information, Geneva

10. Biraud, Y. (1956) A Method for the Recording of Crude Courses of Death by Laymen in Underdeveloped Areas, unpublished document No. WHO/HS/60

11. World Health Organization (1980) International Classification of Impairments, Disabilities, and Handicaps

12. World Health Organization (1978) International Classification of Procedures in Medicine

13. WHO Working Party (1983) Reasons for Encounter Classification, Field Trial Manual

14. Israel, R.A. (1983) The philosophy, principles and advantages of a family of classifications. A possible framework for the future of ICD, Preparatory Meeting on ICD-10, Geneva, 12-16 September 1983, unpublished document No. DES/ICD-10/83.14

15. Brämer, G.R. (1988) International Statistical Classification of Diseases and Related Health Problems: Tenth Revision, WHO, World Health Statistics Quarterly. 41 : 32-36

TENTH REVISION OF THE INTERNATIONAL
CLASSIFICATION OF DISEASES

Geneva, 26 September - 2 October 1989

RECOMMENDED GLOSSARY DEFINITIONS FOR ICD-10 CATEGORIES E43 AND E44 - UNSPECIFIED SEVERE PROTEIN-ENERGY MALNUTRITION, PROTEIN-ENERGY MALNUTRITION OF MODERATE AND MILD DEGREE - IN THE CHAPTER ON ENDOCRINE, NUTRITIONAL AND METABOLIC DISEASES

by

Nutrition Unit

The following definitions are proposed for ICD-10 categories E43 and E44.

E43 Unspecified severe protein-energy malnutrition

Severe loss of weight in children or adults, or lack of weight gain in children leading to the loss of at least 3 percentile or 3 standard deviations. When only one measurement is made, a high probability of severe wasting is likely when weight or height is lesser than minus 3 standard deviations below the reference value in children or when body mass index is less than 18 in adults.

E44 Protein-energy malnutrition of moderate and mild degree

E44.0 Moderate protein-energy malnutrition
Weight loss of 2 up to 3 percentiles or standard deviations when compared to the previous growth of the individual. When only one measurement is made, a high probability of moderate protein-energy malnutrition is likely when weight or height is more than 2 and less than 3 standard deviations below the mean of a reference population distribution.

E44.1 Mild protein-energy malnutrition
Weight loss of 1 up to 2 percentiles or standard deviations when compared to the previous growth of the individual. When only one measurement is made, a high probability of moderate protein-energy malnutrition is likely when weight or height is more than 1 and less than 2 standard deviations below the mean of a reference population distribution.

The following note should be inserted below the block title "MALNUTRITION (E40-E46)".

When several previous measurements are available, failure to grow in children or weight loss in children or adults, leading to a shift of more than 3-2-1 percentiles or standard deviations when compared to the previous growth of the individual, should be classified as severe, moderate or mild malnutrition.

When only one measurement is available, the diagnosis is only based on probabilities and is not definitive without other clinical or laboratory tests. In a normal (gaussian) distribution only 0.36%, 2.15%, and 13.5% of population are located below the cut-off points represented by 1, 2 or 3 standard deviations below the mean of the reference value. For observed values below the mean of the reference value, there is thus a high probability of severe malnutrition for a value situated more than 3 standard deviations from the mean, a high probability of moderate malnutrition for values located between 2 and less than 3 standard deviations and a high probability of mild malnutrition for values located between 1 and less than 2 standard deviations below the mean of a reference population distribution.

An isolated measure would thus give an erroneous classification of malnutrition in the case of a normal healthy individual whose weight is and has always been between minus 2 and minus 3 standard deviations. Conversely, a person whose weight is normally located 2 standard deviations or more above the mean and who has lost weight could, in an isolated measurement, show a value between the mean of the reference value and minus 1 standard deviation, and may therefore be erroneously classified as normal.

Zoonotic bacterial diseases (020-027)

Other bacterial diseases (030-041)

Poliomyelitis and other non-arthropod-borne viral diseases of central nervous system (045-049)

Viral diseases accompanied by exanthem (050-057)

Arthropod-borne viral diseases (060-066)

Other diseases due to viruses and chlamydiae (070-079)

Rickettsioses and other arthropod-borne diseases (080-088)

Syphilis and other venereal diseases (090-099)

Other spriochaetal diseases (100-104)

Mycoses (110-118)

Helminthiases (120-129)

Other infectious and parasitic diseases (130-136)

Late effects of infectious and parasitic diseases (137-139)

Chapter I ICD/10

Intestinal infectious diseases (A00-A09)

Tuberculosis (A15-A19)

Certain zoonotic bacterial diseases (A20-A28)

Other bacterial diseases (A30-A49)

Infections with a predominantly sexual mode of transmission (A50-A64)

Other spirochaetal diseases (A65-A69)

Other diseases caused by chlamydiae (A70-A74)

Rickettsioses (A75-A79)

Viral infections of the nervous system (A80-A89)

Arthropod-borne viral fevers and viral haemorrhagic fevers (A90-A99)

Viral infections characterized by skin and mucous membrane lesions (B00-B09)

Viral hepatitis (B15-B19)

Human immunodeficiency virus [HIV] disease (B20-B24)

Other viral diseases (B25-B34)

Mycoses (B35-B49)

Protozoal diseases (B50-B64)

Helminthiasis (B65-B83)

Pediculosis, acariasis and other infestations (B85-B89)

Sequelae of infectious and parasitic diseases (B90-B94)

Bacterial, viral and other infectious agents (B95-B98)

Other infectious diseases (B99)

Chapter II ICD/9

Malignant neoplasm of lip, oral cavity and pharynx (140-149)

Malignant neoplasm of digestive organs and peritoneum (150-159)

Malignant neoplasm of respiratory and intrathoracic organs (160-165)

Malignant neoplasm of bone, connective tissue, skin and breast (170-175)

Malignant neoplasm of genitourinary organs (179-189)

Malignant neoplasm of other and unspecified sites (190-199)

Malignant neoplasm of lymphatic and haematopoietic tissue (200-208)

Benign neoplasms (210-229)

Carcinoma in situ (230-234)

Neoplasms of uncertain behaviour (235-238)

Neoplasms of unspecified nature (239)

Chapter II ICD/10

Malignant neoplasm of lip, oral cavity and pharynx (C00-C14)

Malignant neoplasm of digestive organs (C15-C26)

Malignant neoplasm of respiratory and intrathoracic organs (C30-C39)

Malignant neoplasm of bone and articular cartilage (C40-C41)

Malignant melanoma and other malignant neoplasms of skin (C43-C44)

Malignant neoplasm of mesothelial and soft tissue (C45-C49)

Malignant neoplasm of breast (C50)

Malignant neoplasm of female genital organs (C51-C58)

Malignant neoplasm of male genital organs (C60-C63)

Malignant neoplasm of urinary tract (C64-C68)

Malignant neoplasm of eye, brain and other parts of central nervous system (C69-C72)

Malignant neoplasm of thyroid and other endocrine glands (C73-C75)

Malignant neoplasm of ill-defined sites, secondary and unspecified site (C76-C80)

Malignant neoplasm of lymphoid, haematopoietic and related tissue (C81-C96)

Malignant neoplasms of independent (primary) multiple sites (C97)

In situ neoplasms (D00-D09)

Benign neoplasms (D10-D36)

Neoplasms of uncertain and unknown behaviour (D37-D48)

Disorders of thyroid gland (240-246)

Diseases of other endocrine glands (250-259)

Nutritional deficiencies (260-269)

Other metabolic disorders and immunity disorders (270-279)

Chapter IV ICD/10

Disorders of thyroid gland (E00-E07)

Diabetes mellitus (E10-E14)

Other disorders of glucose regulation (E15-E16)

Disorders of other endocrine glands (E20-E35)

Malnutrition (E40-E46)

Other nutritional deficiencies (E50-E64)

Obesity and other hyperalimentation (E65-E68)

Metabolic disorders (E70-E90)

Diseases of blood and blood-forming organs (280-289)

Chapter III ICD/10

Nutritional anaemias (D50-D53)

Haemolytic anaemias (D55-D59)

Aplastic and other anaemias (D60-D64)

Coagulation defects, purpura and other haemorrhagic conditions (D65-D69)

Other diseases of blood and blood-forming organs (D70-D76)

Certain disorders involving the immune mechanism (D80-D89)

Organic psychotic conditions (290-294)

Other psychoses (295-299)

Neurotic disorders, personality disorders and other nonpsychotic mental disorders (300-316)

Mental retardation (317-319)

Chapter V ICD/10

Organic, including symptomatic, mental disorders (F00–F09)

Mental and behavioural disorders due to psychoactive and other substance use (F10–F19)

Schizophrenia, schizotypal and delusional disorders (F20–F29)

Mood [affective] disorders (F30–F39)

Neurotic, stress-related and somatoform disorders (F40–F48)

Behavioural syndromes and mental disorders associated with physiological dysfunction (F50–F59)

Disorders of adult personality and behaviour (F60–F69)

Mental retardation (F70–F79)

Disorders of psychological development (F80–F89)

Behavioural and emotional disorders with onset usually occurring in childhood or adolescence (F90–F98)

Unspecified mental disorder (F99)

Other disorders of the central nervous system (340-349)

Disorders of the peripheral nervous system (350-359)

Disorders of the eye and adnexa (360-379)

Diseases of the ear and mastoid process (380-389)

Chapter VI ICD/10

Inflammatory diseases of the central nervous system (G00-G09)

Systemic atrophies primarily affecting the central nervous system (G10-G13)

Extrapyramidal diseases and movement disorders (G20-G26)

Other degenerative diseases of the nervous system (G30-G32)

Demyelinating diseases (G35-G37)

Episodic and paroxysmal disorders (G40-G47)

Nerve, nerve root and plexus disorders (G50-G59)

Polyneuropathies and other disorders of the peripheral nervous system (G60-G64)

Diseases of myoneural junction and muscle (G70-G73)

Cerebral palsy and paralytic syndromes (G80-G83)

Other disorders of the nervous system (G90-G99)

Chapter VII ICD/10

Disorders of eyelid, lacrimal system and orbit (H00-H06)

Disorders of conjunctiva (H10-H13)

Disorders of sclera, cornea, iris and ciliary body (H15-H22)

Disorders of lens (H25-H28)

Disorders of choroid and retina (H30-H36)

Glaucoma (H40-H42)

Disorders of vitreous body and globe (H43-H45)

Disorders of optic nerve and visual pathways (H46-H48)

Disorders of ocular muscles, binocular movement, accommodation and refraction (H49-H52)

Visual disturbances and blindness (H53-H54)

Other disorders of eye and adnexa (H55-H59)

Chapter VIII ICD/10

Diseases of external ear (H60-H62)

Diseases of middle ear and mastoid (H65-H75)

Disorders of inner ear (H80-H83)

Other disorders of ear (H90-H95)

Acute rheumatic fever (390-392)

Chronic rheumatic heart disease (393-398)

Hypertensive disease (401-405)

Ischaemic heart disease (410-414)

Diseases of pulmonary circulation (415-417)

Other forms of heart disease (420-429)

Cerebrovascular disease (430-438)

Diseases of arteries, arterioles and capillaries (440-448)

Diseases of veins and lymphatics, and other diseases of circulatory system (451-459)

Chapter IX ICD/10

Acute rheumatic fever (I00-I02)

Chronic rheumatic heart disease (I05-I09)

Hypertensive disease (I10-I15)

Ischaemic heart disease (I20-I25)

Pulmonary heart disease and diseases of pulmonary circulation (I26-I28)

Other forms of heart disease (I30-I52)

Cerebrovascular diseases (I60-I69)

Diseases of arteries, arterioles and capillaries (I70-I79)

Diseases of veins and lymphatics (I80-I89)

Other and unspecified disorders of the circulatory system (I95-I99)

Acute respiratory infections (460-466)

Other diseases of upper respiratory tract (470-478)

Pneumonia and influenza (480-487)

Chronic obstructive pulmonary disease and allied conditions (490-496)

Pneumoconioses and other lung diseases due to external agents (500-508)

Other diseases of respiratory system (510-519)

Chapter X ICD/10

Acute upper respiratory infections (J00-J06)

Acute lower respiratory infections (J10-J21)

Other diseases of upper respiratory tract (J30-J39)

Chronic lower respiratory diseases (J40-J47)

Lung diseases due to external agents (J60-J70)

Other respiratory diseases affecting principally the interstitium (J80-J84)

Suppurative and necrotic conditions of the lower respiratory tract (J85-J86)

Other diseases of the pleura (J90-J94)

Other diseases of the respiratory system (J95-J99)

Diseases of oral cavity, salivary glands and jaws (520-529)
Diseases of oesophagus, stomach and duodenum (530-537)
Appendicitis (540-543)
Hernia of abdominal cavity (550-553)
Noninfective enteritis and colitis (555-558)
Other diseases of intestines and peritoneum (560-569)
Other diseases of digestive system (570-579)

Chapter XI ICD/10

Diseases of the oral cavity, salivary glands and jaws (K00-K14)
Diseases of oesophagus, stomach and duodenum (K20-K31)
Diseases of appendix (K35-K38)
Hernia (K40-K46)
Noninfective enteritis and colitis (K50-K52)
Other diseases of intestines (K55-K63)
Diseases of peritoneum (K65-K67)
Diseases of the liver (K70-K77)
Disorders of gallbladder, biliary tract and pancreas (K80-K87)
Other diseases of the digestive system (K90-K93)

Nephritis, nephrotic syndrome and nephrosis (580-589)
Other diseases of urinary system (590-599)
Diseases of male genital organs (600-608)
Disorders of breast (610-611)
Inflammatory disease of female pelvic organs (614-616)
Other disorders of female genital tract (617-629)

Chapter XIV ICD/10

Glomerular diseases (N00-N08)
Renal tubulo-interstitial diseases (N10-N16)
Renal failure (N17-N19)
Urolithiasis (N20-N23)
Other disorders of kidney and ureter (N25-N29)
Other diseases of urinary system (N30-N39)
Diseases of male genital organs (N40-N51)
Disorders of breast (N60-N64)
Inflammatory diseases of female pelvic organs (N70-N77)
Noninflammatory disorders of female genital tract (N80-N99)

Pregnancy with abortive outcome (630-639)

Complications mainly related to pregnancy (640-648)

Normal delivery, and other indications for care in pregnancy, labour and delivery (650-659)

Complications occurring mainly in the course of labour and delivery (660-669)

Complications of the puerperium (670-676)

Chapter XV ICD/10

Pregnancy with abortive outcome (000-008)

Oedema, proteinuria and hypertensive disorders in pregnancy, childbirth and the puerperium (010-016)

Other maternal disorders predominantly related to pregnancy (020-029)

Maternal care related to fetus and amnotic cavity and possible delivery problems (030-048)

Complications of labour and delivery (060-075)

Method of delivery (080-084)

Complications predominantly related to the puerperium (085-092)

Other obstetric conditions not elsewhere classified (095-099)

Infections of skin and subcutaneous tissue (680-686)

Other inflammatory conditions of skin and subcutaneous tissue (690-698)

Other diseases of skin and subcutaneous tissue (700-709)

Chapter XII ICD/10

Infections of the skin and subcutaneous tissue (L00-L08)

Bullous disorders (L10-L14)

Dermatitis and eczema (L20-L30)

Papulosquamous disorders (L40-L45)

Urticaria and erythema (L50-L54)

Radiation related disorders of the skin and subcutaneous tissue (L55-L59)

Disorders of skin appendages (L60-L75)

Other disorders of the skin and subcutaneous tissue (L80-L99)

Arthropathies and related disorders (710-719)

Dorsopathies (720-724)

Rheumatism, excluding the back (725-729)

Osteopathies, chondropathies and acquired musculoskeletal deformities (730-739)

Chapter XIII ICD/10

Infective arthropathies (M00-M03)

Inflammatory polyarthropathies (M05-M14)

Arthrosis (M15-M19)

Other joint disorders (M20-M25)

Systemic connective tissue disorders (M30-M36)

Deforming dorsopathies (M40-M43)

Spondylopathies (M45-M49)

Other dorsopathies (M50-M54)

Disorders of muscles (M60-M63)

Disorders of synovium and tendon (M65-M68)

Other soft tissue disorders (M70-M79)

Disorders of bone density and structure (M80-M85)

Other osteopathies (M86-M90)

Chondropathies (M91-M94)

Other disorders of the musculoskeletal system and connective tissue (M95-M99)

Congenital anomalies (740-759)

Chapter XVII ICD/10

Congenital malformations of the nervous system (Q00-Q07)

Congenital malformations of eye, ear, face and neck (Q10-Q18)

Congenital malformations of the circulatory system (Q20-Q28)

Congenital malformations of the respiratory system (Q30-Q34)

Cleft lip and cleft palate (Q35-Q37)

Other congenital malformations of the digestive system (Q38-Q45)

Congenital malformations of genital organs (Q50-Q56)

Congenital malformations of the urinary system (Q60-Q64)

Congenital malformations and deformations of the musculoskeletal system (Q65-Q79)

Other congenital malformations (Q80-Q89)

Chromosomal abnormalities not elsewhere classified (Q90-Q99)

Certain conditions originating in the perinatal period (760-779)

Chapter XVI ICD/10

Fetus or newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00-P04)

Disorders relating to length of gestation and fetal growth (P05-P08)

Birth trauma (P10-P15)

Respiratory and cardiovascular disorders specific to the perinatal period (P20-P29)

Infections specific to the perinatal period (P35-P39)

Haemorrhagic and haematological disorders of fetus or newborn (P50-P61)

Transitory endocrine and metabolic disorders specific to fetus or newborn (P70-P74)

Digestive system disorders of fetus or newborn (P75-P78)

Conditions involving the integument and temperature regulation of fetus or newborn (P80-P83)

Other disorders originating in the perinatal period (P90-P95)

Symptoms (780-789)

Nonspecific abnormal findings (790-796)

Ill-defined and unknown causes of morbidity and mortality (797-799)

Chapter XVIII ICD/10

Symptoms involving the circulatory system (R00-R04)

Symptoms involving the respiratory system (R05-R09)

Symptoms involving the digestive system (R10-R19)

Symptoms involving the skin and other integumentary tissue (R20-R23)

Symptoms involving the nervous and musculoskeletal systems (R25-R29)

Symptoms involving the urinary system (R30-R39)

Symptoms involving cognition, perception, emotional state and behaviour (R40-R46)

Symptoms involving speech and voice (R47-R49)

General symptoms (R50-R69)

Abnormal findings on examination of blood without diagnosis (R70-R79)

Abnormal findings on examination of urine without diagnosis (R80-R82)

Abnormal findings on examination of other body fluids, substances and tissues without diagnosis (R83-R89)

Abnormal findings on diagnostic imaging and function studies without diagnosis (R90-R94)

Ill-defined and unknown causes of mortality (R95-R99)

Fracture of skull (800-804)

Fracture of spine and trunk (805-809)

Fracture of upper limb (810-819)

Fracture of lower limb (820-829)

Dislocation (830-839)

Sprains and strains of joints and adjacent muscles (840-848)

Intracranial injury, excluding those with skull fracture (850-854)

Internal injury of chest, abdomen and pelvis (860-869)

Open wound of head, neck and trunk (870-879)

Open wound of upper limb (880-887)

Open wound of lower limb (890-897)

Injury to blood vessels (900-904)

Late effects of injuries, poisonings, toxic effects and other external causes (905-909)

Superficial injury (910-919)

Contusion with intact skin surface (920-924)

Crushing injury (925-929)

Effects of foreign body entering through orifice (930-939)

Burns (940-949)

Injury to nerves and spinal cord (950-957)

Certain traumatic complications and unspecified injuries (958-959)

Poisoning by drugs, medicaments and biological substances (960-979)

Toxic effects of substances chiefly nonmedicinal as to source (980-989)

Other and unspecified effects of external causes (990-995)

Complications of surgical and medical care not elsewhere classified (996-999)

Injuries to the head (S00-S09)

Injuries to the neck (S10-S19)

Injuries to the thorax (S20-S29)

Injuries to the abdomen, lower back, lumbosacral spine and pelvis (S30-S39)

Injuries to the shoulder and upper arm (S40-S49)

Injuries to the forearm, except wrist and hand (S50-S59)

Injuries to the wrist and hand (S60-S69)

Injuries to the hip and thigh (S70-S79)

Injuries to the knee and lower leg (S80-S89)

Injuries to the ankle and foot (S90-S99)

Injuries involving multiple body regions (T00-T06)

Injuries to unspecified part of trunk, limb or body region (T07-T11)

Effects of foreign body entering through natural orifice (T12-T19)

Burns and corrosions (T20-T32)

Frostbite (T33-T35)

Poisoning by drugs and biological substances (T36-T50)

Toxic effects of substances chiefly nonmedicinal as to source (T51-T65)

Other and unspecified effects of external causes (T66-T78)

Certain early complications of trauma (T79)

Complications of surgical and medical care (T80-T89)

Sequelae of injuries, poisoning and of other consequences of external causes (T90-T98)

Chapter XX ICD/10

ACCIDENTS (V01-X59)

TRANSPORT ACCIDENTS (V01-V99)
- Pedestrian injured in transport accident (V01-V09)
- Pedalcyclist injured in transport accident (V10-V19)
- Motorcycle rider injured in transport accident (V20-V29)
- Three-wheeled motor vehicle occupant injured in transport accident (V30-V39)
- Car occupant injured in transport accident (V40-V49)
- Pickup truck or van occupant injured in transport accident (V50-V59)
- Heavy transport vehicle occupant injured in transport accident (V60-V69)
- Bus occupant injured in transport accident (V70-V79)
- Other land transport accidents (V80-V89)
- Other transport accidents (V90-V99)
- Water transport accidents (V90,V94)
- Air and space transport accidents (V95-V97)
- Other and unspecified transport accidents (V98,V99)

OTHER ACCIDENTS (W00-X59)
- Falls (W00-W19)
- Exposure to inanimate mechanical forces (W20-W49)
- Exposure to animate mechanical forces (W50-W64)
- Accidental drowning and submersion (W65-W74)
- Other accidental threats to breathing (W75-W84)
- Exposure to electric current, radiation and extreme ambient air temperature and pressure (W85-W99)
- Exposure to smoke, fire and flames (X00-X09)
- Contact with heat and hot substances (X10-X19)
- Contact with venomous plants and animals (X20-X29)
- Exposure to forces of nature (X30-X39)
- Accidental poisoning by and exposure to noxious substances (X40-X49)
- Overexertion travel and privation (X50-X57)
- Exposure to other and unspecified factors (X58,X59)

INTENTIONAL SELF-HARM (includes suicide) (X60-X84)

ASSAULT (X85-Y09)

EVENT OF UNDETERMINED INTENT (Y10-Y34)

LEGAL INTERVENTION AND OPERATIONS OF WAR (Y35,Y36)

COMPLICATIONS OF MEDICAL AND SURGICAL CARE (Y40-Y84)
- Drugs and biological substances causing adverse effects in therapeutic use (Y40-Y59)
- Misadventures to patients during surgical and medical care (Y60-Y69)
- Medical devices associated with adverse incidents in diagnostic and therapeutic use (Y70-Y82)
- Surgical and medical procedure as the cause of abnormal reaction of patient or of later complication, without mention of misadventure at the time of procedure (Y83,Y84)

SEQUELAE OF EXTERNAL CAUSES (Y85-Y89)

SUPPLEMENTARY FACTORS RELATED TO MORBILITY AND MORTALITY (Y90-Y98)

Persons with potential health hazards related to communicable diseases (V01-V07)

Persons with potential health hazards related to personal and family history (V10-V19)

Persons encountering health services in circumstances related to reproduction and development (V20-V28)

Healthy liveborn infants according to type of birth (V30-V39)

Persons with a condition influencing their health status (V40-V49)

Persons encountering health services for specific procedures and aftercare (V50-V59)

Persons encountering health services in other circumstances (V60-V68)

Persons without reported diagnosis encountered during examination and investigation of individuals and populations (V70-V82)

Persons encountering health services for examination and investigation (Z00-Z13)

Persons with potential health hazards related to communicable diseases (Z20-Z29)

Persons encountering health services in circumstances related to reproduction (Z30-Z39)

Persons encountering health services for specific procedures and care (Z40-Z53)

Persons with potential health hazards related to socioeconomic and psychosocial circumstances (Z55-Z65)

Persons encountering health services in other circumstances (Z70-Z76)

Persons with potential health hazards related to family and personal history and certain conditions influencing the health status (Z80-Z98)

CHAPTER	AVAILABLE 3-CHARACTER CATEGORIES	USED 3-CHARACTER CATEGORIES	*CATEGORIES AT 3-CHARACTER LEVEL	3-CHARACTERS WITHOUT SUB-DIVISIONS
I	200	170	-	38
II	150	136	-	22
III	50	32	1	5
IV	100	73	2	17
V	100	77	2	16
VI	100	67	16	13
VII	60	47	12	2
VIII	40	24	5	5
IX	100	76	8	7
X	100	63	3	18
XI	100	71	5	5
XII	100	72	6	15
XIII	100	79	12	1
XIV	100	82	9	15
XV	100	77	-	11
XVI	100	58	1	7
XVII	100	87	-	1
XVIII	100	91	-	39
XIX	200	196	-	13
XX	400	375	-	9
XXI	100	82	-	4

CHAPTER	AVAILABLE 3-DIGIT CATEGORIES	USED 3-DIGIT CATEGORIES	*CATEGORIES AT 3-DIGIT LEVEL	3-DIGITS WITHOUT SUBDIVISIONS
I	139	120	-	23
II	100	92	-	10
III	40	37	-	5
IV	10	10	-	1
V	30	30	-	5
VI	70	65	1	4
VII	70	58	-	13
VIII	60	49	2	22
IX	60	48	-	7
X	50	47	-	7
XI	50	46	-	8
XII	30	26	-	5
XIII	30	30	1	2
XIV	20	20	-	-
XV	20	20	-	1
XVI	20	20	-	1
XVII	200	190	-	10
E-code	200	192	-	50
V-code	100	77	-	1

I	Infectious and parasitic diseases	001 - 139
II	Neoplasms	140 - 239
III	Endocrine, nutritional and metabolic diseases and immunity disorders	240 - 279
IV	Diseases of blood and blood-forming organs	280 - 289
V	Mental disorders	290 - 319
VI	Diseases of the nervous system and sense organs	320 - 389
VII	Diseases of the circulatory system	390 - 459
VIII	Diseases of the respiratory system	460 - 519
IX	Diseases of the digestive system	520 - 579
X	Diseases of the genitourinary system	580 - 629
XI	Complications of pregnancy, childbirth and the puerperium	630 - 676
XII	Diseases of the skin and subcutaneous tissue	680 - 709
XIII	Diseases of the musculoskeletal system and connective tissue	710 - 739
XIV	Congenital anomalies	740 - 759
XV	Certain conditions originating in the perinatal period	760 - 779
XVI	Symptoms, signs and ill-defined conditions	780 - 799
XVII	Injury and poisoning	800 - 999
	Supplementary classification of external causes of injury and poisoning	E800 - E999
	Supplementary classification of factors influencing health status and contact with health services	V01 - V82

I	Certain infectious and parasitic diseases	A00-B99
II	Neoplasms	C00-D48
III	Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	D50-D89
IV	Endocrine, nutritional and metabolic diseases	E00-E90
V	Mental and behavioural disorders	F00-F99
VI	Diseases of the nervous system	G00-G99
VII	Diseases of the eye and adnexa	H00-H59
VIII	Diseases of the ear and mastoid process	H60-H95
IX	Diseases of the circulatory system	I00-I99
X	Diseases of the respiratory system	J00-J99
XI	Diseases of the digestive system	K00-K93
XII	Diseases of the skin and subcutaneous tissue	L00-L99
XIII	Diseases of the musculoskeletal system and connective tissue	M00-M99
XIV	Diseases of the genitourinary system	N00-N99
XV	Pregnancy, childbirth and the puerperium	O00-O99
XVI	Certain conditions originating in the perinatal period	P00-P95
XVII	Congenital malformations, deformations, and chromosomal abnormalities	Q00-Q99
XVIII	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	R00-R99
XIX	Injury, poisoning and certain other consequences of external causes	S00-T98
XX	External causes of morbidity and mortality	V00-Y98
XXI	Factors influencing health status and contact with health services	Z00-Z98