

Questions	Assessment findings	Improvement goal	Actions/activities in sequence	Time frame	Responsibility	Resource requirement		
						HR	Training	Funds
A-23 هل يتوفر الانترنت والهواتف والماسحات الضوئية في مكاتب التسجيل المدني	عدم وجود الانترنت والهواتف والماسحات في مكاتب التسجيل المدني	توفير الانترنت واجهزة الهواف والماسحات الضوئية في كافة مكاتب التسجيل المدني	وضع خطة ورفع مذكرة الى الجهات العليا المختصة بعدد المكاتب التي تحتاج انترنت واجهزة هاتف واسحات ضوئية وعدد الاجهزة والعاملين عليها	ستة اشهر	وزارة الصحة	minimal	تدريب الكوادر	تخصيص المبالغ الكافية
A-21-3 هل هناك ميزانية منفصلة للتوعية لضرورة التسجيل	وجدنا ان موضوع التوعية الاعلامية مهمة جداً في موضوع التسجيل المدني	تخصيص مبالغ كافية من الميزانية المركزية للتوعية بنظام التسجيل المدني	نشر رسالة توعية عن طريق البوسترات والكتب والمحاضرات والقنوات الفضائية	سنة واحدة	وزارة الصحة والداخلية والخارجية وهيئة الاعلام والاتصالات	الموارد البشرية المختصة	تدريب الكوادر	تخصيص الاموال الكافية للتوعية
A-4-1 هل تتوافق التعريفات مع A-4-1 المعايير الدولية بما يخص وفاة الجنين او ولادة مولود ميت	تبين ان المادة 20 تنص على ان عمر الجنين المولود ميتاً هو 28 اسبوع (7 اشهر حمل) بينما المعايير الدولية	جعل عمر الجنين الموليد ميتاً هو 24 اسبوع حمل وفق المعايير الوطنية	1-اجتماع المعنين بالموضوع وزارة الصحة والداخلية والخارجية والتخطيط 2- تشكيل لجنة في	سنة واحدة	وزارة الصحة			تعميم القانون الجديد

	الحديثة تنص على ان عمر الجنين 24 اسبوع حمل		وزارة الصحة لتعديل نص المادة لغرض رفعها الى مجلس شورى الدولة ومجلس النواب لغرض اصدار قانون بذلك					
هل هذه الاموال كافية A-18-3-3 لضمان الاداء الجيد للنظام	عدم وجود موازنة لتحفيز العاملين لجودة الاداء	تحسين اداء العاملين عن طريق تحفيز المجيدين	1- دراسة كيفية تحفيز العاملين لتحسين الاداء 2- تقدير الموازنات المطلوبة 3- رفع المطالبة للمستوى الاعلى للتصديق	مستمرة	وزارة الصحة وزارة المالية	Minimal	تدريب الكوادر الموجودة على التقنيات الحديثة	التصديق على الموازنات المطلوبة بعد تقديرها
هل عدد المكاتب المحلية A-20 لتسجيل الاحوال المدنية او نقاط التسجيل وتوزيعها كافة لتغطية الدولة بأكملها	ان عدد المكاتب لتغطية الدولة بأكملها غير كاف	فتح مكاتب جديدة وخاصة في المناطق النائية	1- اجراء مسح او دراسة لمعرفة عدد المناطق التي تحتاج مكاتب جديدة 2- وضع خطة ورفع مذكرة الى الجهات العليا لاستحصال	سنة واحدة	وزارة الصحة	توفير موارد بشرية متخصصة	تدريب الكوادر الاحصائية	تخصيص المبالغ الكافية

			الموافقة على فتح العدد المطلوب من المكاتب الجديدة					
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Questions	Assessment findings	Improvement goal	Actions/activities in sequence	Time frame	Responsibility	Resource requirement		
						HR	Training	Funds
<b>B1.5 What are the current communication mechanisms between the civil registration authority and others involved in the collection and production of vital statistics?</b>	<p>1-There is no electric communication.</p> <p>2-requires along time.</p> <p>3-possibility of a delay in the data.</p>	Making communication electrically.	<p>1-providing computers in all registration offices ,civil affair departments(to the secretary civil registry)and and an electronic link with the relevant ministries.</p> <p>2-training for all staff in both registration offices and civil affair departments.</p> <p>3- Meetings and workshops between staff registry offices and health departments and departments of civil status.</p>	3 years	The Ministry of Health and the Ministry of Interior and the Ministry of Planning Central Bureau of Statistics.	Statistical and technical staff and programmers and systems analysts.	Staff of registration offices and civil affair departments.	

<p><b>B3.7 What subpopulations are most likely to be undercounted in vital registration? (Note: undercounting may be different for births and deaths.)</b></p>	<p>Some of the children of the deceased less than a month old did not get a birth certificate and death certificate and is buried in an irregular manner.</p>	<p>Registration of all births and deaths, especially of the age group less than a month.</p>	<p>1 - exposing people born or deceased legal repercussions and identify a specific period for the registration of death.</p> <p>2 - updated form i 1(form for life incidents).</p> <p>3 - media campaigns through the media to educate the citizens need to register newborn unchanged birth and death regardless of age in health institutions.</p>	<p>3 months</p>	<p>The Ministry of Health through the media center ministry</p>	<p>Minimal human resources</p>	<p>No need for training</p>	
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<p>B1.8 Are there any areas where bottlenecks regularly occur?</p>	<p>Yes, there are areas with significant momentum because of the intensity of the health institutions competent birth</p>	<p>Reduce the momentum of the offices of the Births and Deaths.</p>	<p>1 - open more than one office in the areas in which many health institutions for delivery. 2 - re-evaluate the work of the offices of births and deaths between one period and another. 3 - Providing existing staff offices and renovation work style.</p>	<p>1-3 years</p>	<p>Ministry of health</p>	<p>Human reourses</p>	<p>Appoint new staff and develop the existing staff.</p>	
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<p><b>B1.29 Are monthly or quarterly registration data routinely checked to ensure that they are comparable with previous years?</b></p>	<p>The absence of routine screening in monthly or quarterly, but is compared annually.</p>	<p>Comparisons monthly and quarterly stats.</p>	<p>1- Ordering ministerial and circulated to all registration offices.</p> <p>2 - comparisons and the extent to which they extract indicators related.</p>	<p>3months</p>	<p>Moh department of statistics</p>	<p>Same existing human resources after training</p>	<p>Needs to training courses on how to check and comparison</p>	
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<p><b>B3.1 What proportion of the population has access to civil registration in the area where they live?</b></p>	<p>Do we have the proportion of the population who have the access to the civil registry offices?</p>	<p>How to extract ratios</p>	<p>1 - application of the law on the level of access to the records.</p> <p>2 - to know the size of the population of each region and see the size of the total population of the country.</p>	<p>1year</p>	<p>Ministry of Health - Department of Statistics Division Studies in collaboration with the Ministry of Planning</p>	<p>Same existing staff after training</p>	<p>Needs to training sessions on knowledge extraction ratios.</p>	
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Questions	Assessment findings	Improvement goal	Actions/activities in sequence	Time frame	Responsibility	Resource requirement		
						HR	Training	Funds
<b>C1.5 Is the standard international form of medical certificate of cause of death used for all deaths?</b>	-Issued some orders from judicial organization of the death certificate without autopsy -Issuing death documents of the judicial authorities without mentioning the cause of death	No death certificate and death document issued without cause of death	Banning the power of judicial authorities to issue orders to the health authorities organized a death certificate without autopsy  Update of death documents to include stated the probable cause of death issued from MOH and place of death	> 24 months	MOH judicial authorities	Minimal	-	-

<b>C1.7 Do doctors know how to correctly complete the death certificate, including the causal sequence and the underlying cause?</b>	Doctors infrequently know how to correctly complete the death certificate, including the causal sequence and the underlying cause	Improve knowledge of doctors how to correctly complete the death certificate	Include the ICD subject in the curriculum of undergraduate student of medical colleges  Obligatory training courses of ICD to doctors in their Rotation period  Obligatory training courses of ICD to doctors before enrolment in their post graduation	<12 months  <3 months  <6 months	MOH MOHE WHO	Minimal	TOT for the medical faculties  TOT in the health directorates	??  Nothing
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<p><b>C1.8 Is there a booklet, brochure or other guideline for doctors explaining how to certify the cause of death and complete the international form properly?</b></p>	<p>Available but not widely distributed</p>	<p>Increase knowledge of doctors regarding how to certify the cause of death and complete the international form properly</p>	<ul style="list-style-type: none"> <li>• printed the guidelines on the cover of the books of the death certificate</li> <li>• clearly displayed in the whereabouts of doctors in hospitals</li> <li>• publish these instructions in larger numbers to all the relevant authorities, including the colleges of medicine (branch of Community Medicine and Forensic Medicine)</li> </ul>	<p>&lt;12 months</p>	<p>MOH MOHE</p>	<p>Minimal</p>	<p>-</p>	<p>-</p>
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<p><b>C2.1 In hospitals, who completes the death certificate?</b></p>	<p>Issued death certificate by junior doctors</p>	<p>Application of laws and regulations for organizing the death certificate by the treating physician</p>	<p>Emphasis on activating the laws and regulations for organizing the death certificate by the treating physician (Specialists or senior residents) and not issued by the junior doctors or gradient doctors</p>	<p>&lt;3 months</p>	<p>MOH</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p><b>C3.1 Is it mandatory to issue a death certificate with the cause of death indicated for people who die at home?</b></p> <p><b>C4.9 Has the country evaluated the quality of medical certification?</b></p>	<p>No studies of quality assessment of the death certificate has been done</p>	<p>Improve quality of cause of death in the death certificate</p>	<p>Conduct a study on the deaths that occur outside health institutions by comparing the causes of death listed on the death certificate with those obtained from the relatives of the deceased.</p> <p>Conduct a study on the deaths that occur in health institutions by comparing the causes of death listed on the death certificate</p>	<p>&lt; 12 months</p>	<p>MOH MOHE</p>	<p>Minimal</p>	<p>Training the staff that will carry out the studies</p>	<p>??</p>

			with a health information of deceased in medical records before his death					
<b>C4.6 Are perinatal deaths monitored using a special form, as recommended by the WHO?</b>	No perinatal deaths monitoring used	perinatal deaths monitoring using form recommended by the WHO and included it in the maternal death monitoring program	<p>Ensure political commitment from MOH</p> <p>Workshop on using WHO perinatal deaths monitoring form</p> <p>Reform the steering and technical committee concerned with MM</p> <p>Training of the concerned staff at peripheral level</p>	<24 months	MOH WHO	Minimal	Training of the MOH staff	??

<b>C4.7 What training and practice do doctors receive in certifying the cause of death?</b>	No on job training	On job training of doctors	Implementing on job training of doctors in certifying cause of death in health facilities	<3 months	MOH	-	-	-
<b>C4.11 Are hospital medical records generally complete, reliable, Easily accessible to the certifier?</b>	Hospital records are incomplete and not easily accessible to the certifier	To make all records complete, reliable, Easily accessible to the certifier	Emphasis on attention to medical records preservation and archiving	<3 months	MOH	-	-	-
<b>C4.12 Are other health records, such as from health clinics, general practitioners or family doctors complete, reliable, Easily accessible to the certifier?</b>	Health records are incomplete, unreliable & not Easily accessible to the certifier		Electronic Archiving  update discharging card for patients and compel them retrieved when attending any health institution and when organizing the death certificate	<24 months	MOH & private sector	-	Training	??
				<12 months	MOH	-	-	-

			Apply magnetic card in the medical field	> 3 years	MOH & private sector	Maximal	Maximal	??
<b>D1.10 If coding is decentralized, what quality measures and procedures are in place to ensure national consistency in the application of ICD coding rules?</b>	coding is decentralized, no quality measures applied	Apply quality measures and procedures in to ensure national consistency in the application of ICD coding rules	Conduct a study to compare the causes of death on the death certificate of health directorates	<12 months	MOH MOHE	-	-	-

<p><b>D1.13 Is there an established mechanism to query the certifier (doctor) in cases where the coder cannot understand or interpret the reported causes of death on the certificate?</b></p>	<p>There is no mechanism to query the doctor in cases where the coder cannot understand or interpret the reported causes of death on the certificate</p>	<p>established mechanism to query the certifier (doctor) in cases where the coder cannot understand or interpret the reported causes of death on the certificate</p>	<p>Developing standardized operation procedure (SOP) to guide the coder to search for additional information if the cause of death is not clear</p>	<p>&lt;6 months</p>	<p>MOH</p>	<p>-</p>	<p>-</p>	<p>-</p>
<p><b>D2.3 Are specific training courses provided for mortality coders or do they learn on-the-job?</b></p>	<p>There are specific training courses provided for mortality coders, but no formal mandatory pre-employment training for the coders (Statisticians)</p>	<p>Establish a mandatory pre-employment training for the coders (Statisticians)</p>	<p>Pre-employment training courses the coders (Statisticians)  Continuous evaluation and monitoring</p>	<p>&lt;3 months</p>	<p>MOH</p>	<p>-</p>	<p>-</p>	<p>-</p>



<b>D2.5 Is there a high turnover among coders?</b>	There is a high turnover among statisticians & coders	Decrease the effect of turnover among statisticians & coders	Emphasis on the non-transfer of statisticians from their places of work  Train all employees in the statistic sections on the ICD	< 24 months	MOH	-	-	-
<b>D2.7 Are there local senior trainers who have been trained at WHO-FIC supported training courses?</b>	There are no local senior trainers who have been trained at WHO-FIC supported training courses	To have local senior trainers who have been trained at WHO-FIC supported training courses	Training workshop on local senior trainers who have been trained at WHO-FIC supported training courses	<24 months	MOH WHO	??	??	??

<p><b>D3.2 Do all coders have a set of the ACME decisions tables?</b></p>	<p>coders have no set of the ACME decisions tables</p>	<p>to make all coders have it</p>	<p>Training workshop on the ACME decision tables</p>	<p>&lt;24 months</p>	<p>MOH WHO</p>	<p>Minimal</p>	<p>TOT</p>	<p>??</p>
<p><b>D3.3 Do you regularly check the ICD web site, for updates to codes and coding practices &amp; the department of health's web site for updates on coding practices?</b></p>	<p>No regularly check the ICD web site for updates to codes and coding practices &amp; the department of health's web site for updates on coding practices</p>	<p>regularly check the ICD web site for updates to codes and coding practices &amp; the department of health's web site for updates on coding practices</p>	<p>regularly check the ICD web site, for updates to codes and coding practices &amp; the department of health's web site for updates on coding practices at least twice yearly</p>	<p>&lt;6 months</p>	<p>MOH</p>	<p>-</p>	<p>-</p>	<p>-</p>

<p><b>D3.4 What processes are in place to assess the quality of cause of death coding, and how frequently is this assessed?</b></p>	<p>Assessment the quality of cause of death coding is done monthly , but not according to standard tools</p>	<p>Assess the quality of cause of death coding using standard tools</p>	<p>Periodic Assessment of the quality of cause of death coding using standard tools</p>	<p>&lt; 12 months</p>	<p>MOH</p>	<p>-</p>	<p>-</p>	<p>-</p>
	<p>Paper based system of death and birth certificates</p>	<p>Developing electronic version of death and birth certificates</p>	<p>Making available of computers specified for these certificates</p> <p>Making available of high quality of papers to print these certificates</p> <p>Develop formal guideline to facilitate application of this system</p>	<p>&gt; 24 months</p>	<p>MOH</p>	<p>Minimal</p>	<p>Training</p>	<p>??</p>

	Incomplete reporting of death	Increases completeness of death registration	Panning burial without death certificate	<12 months	MOH with collaboration with MOI	-	-	-
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## **Component E – Data access, use and quality checks**

### **Subcomponent E1: Data quality and plausibility checks**

Supporting material to be prepared in advance:

- Tabulations of relevant vital event data from other sources (e.g. censuses with birth and death questions, demographic and health surveys (DHS) and other national surveys). Calculations of birth and death rates from these sources compared with birth and death rates derived from civil registration (see Box 3.8).
- Calculations of the percentage distribution of deaths for the latest available year according to three broad cause-of-death groups I, II and III, as shown in Box 3.10.
- Calculations of the percentage distribution of deaths for the latest available year according to cause of- death groups I, II and III within 5-year or 10-year age intervals (see Box 3.11).
- Calculation of the percentage of deaths by age and sex being assigned to ill-defined cause-of-death categories.

### **Subcomponent E1 (A): Levels of fertility and mortality**

The best way to check the plausibility of vital statistics is to convert them into birth and death rates or ratios. Consistency checks should always be carried out both on the raw data and on key indicators (e.g. birth and death rates) before they are used or made more widely available. This can be done simply by comparing the raw data, and the rates derived from them, to corresponding figures from previous years. Major changes in numbers or rates are unlikely from year to year and should be investigated.

**E1.1 Are fertility indicators (e.g. crude birth or fertility rate, age-specific fertility rate and total fertility rate) routinely calculated from the civil registration and vital statistics data?**

**Yes**

**E1.2 If so, which indicators are calculated?**

**All indicators**

**E1.3 Are mortality indicators (e.g. crude death or mortality rate, age-specific mortality rate, infant mortality rate, neonatal mortality rate and maternal mortality rate) routinely calculated from the civil registration and vital statistics data?**

**Yes**

**E1.4 If so, which indicators are calculated?**

**All indicators**

**E1.5 What data sources are used as the denominators to calculate these rates?**

**Data sources are the population numbers which are estimated from the CSO annually**

**E1.6 Describe the plausibility and consistency checks that are carried out on the data and indicators before they are released for use (see Box 3.9).**

**Plausibility and consistency checks are carried out on the data and indicators but not based on the standard forms as describes before they are released for use**

It should not be assumed that, just because a country has a vital statistics system, the data the country produces are accurate. There are many potential sources of error in the vital statistics, including under-registration, age misreporting of deaths, and incorrect certification and coding of the underlying cause of death. Therefore, countries should carry out a range of consistency checks to identify possible sources of error in the data. This knowledge (e.g. about under-registration of deaths) will guide efforts to redress the problems.

**E1.7 Are the civil registration and vital statistics data used to investigate variations in fertility and mortality within the country? If so, describe how this is being done.**

**Yes the civil registration and vital statistics data used to investigate variations in fertility and mortality within the country by close checkup of the monthly data which is collected from all the health directorates**

**E1.8 Are fertility rates derived from civil registration and vital statistics compared with rates derived from other sources?**

**NO THEYARE NOT COMPARED**

**E1.9 Are mortality rates derived from civil registration and vital statistics compared with rates derived from other sources?**

**NO THEYARE NOT COMPARED**

In countries lacking reliable vital statistics systems the investigation of fertility and mortality is particularly important. If the completeness of vital registration data is less than about 90%, the UN advises countries to include both fertility and mortality questions in the census. Estimates of fertility and mortality derived from census data, however, are approximate and subject to various errors, and should be adjusted using standard demographic techniques (19). Nonetheless, these data can be useful for estimating the completeness and overall performance of vital registration.

**E1.10 Did the last census include a question on births or deaths; for example:**

- **Number of children ever born alive and still alive?**
- **Date of birth of last child born alive?**
- **Whether the last birth was registered?**
- **Whether the last death was registered?**
- **Deaths in the household in the past 12–24 months?**

**Yes the last census include all these questions**

**E1.11 If so, have the data been analysed and compared with the vital statistics data?**

**The last census done in our country in 1997 , so the data are very old and not compared with routine vital statistics**

Other sources (e.g. church, cemetery, police, village records and different administrative databases) can be used to complete and verify vital registration data, through matching of births and deaths.

**E1.12 Are other sources used to complete and verify birth and death data?**

**NO.**

### E1.13 If so, describe these.

None

#### Box 3.6 Verbal autopsy

Verbal autopsy is a way of determining the cause of death by asking caregivers, friends or family members about signs and symptoms experienced by the deceased person in the period before death. This is usually done with a standard questionnaire that collects details on signs, symptoms and any medical history or events prior to death.

The cause of death or the sequence of causes that led to death should always be assigned by a doctor, based on this questionnaire and all other available information. Guidelines and diagnostic algorithms are available to assist in evaluating the information and correctly diagnosing the cause of death (37).

The purpose of a verbal autopsy is to obtain information on cause of death at the community or population level where vital registration with medical certification is limited or absent.

#### Box 3.9 Standard plausibility and consistency checks

It is useful to carry out standard plausibility or consistency checks on the vital statistics by combining or aggregating the data into standard 5-year age groups. For fertility, births should be grouped according to age of mother, namely <15 years, 15–19 years, 20–24 years, ... , 45–49 years and 50+ years.

For mortality, deaths should be aggregated into the following age groups: <1 year (i.e. died before reaching the first birthday), 1–4 years, 5–9 years, 10–14 years, ... , 80–84 years and 85+ years. Wherever possible, deaths should be tabulated up to age 100 in 5-year age groups.

Age-specific fertility rates (for ages of the mother shown above) and age-specific mortality rates (for the ages at death shown above) should be calculated separately for males and females. An estimate of the mid-year population by age and sex is required to calculate the rates.

Based on these aggregate numbers of deaths (and births) by age, and on the age-specific birth and death rates, countries should calculate the metrics listed below from their vital statistics data, and should carefully review their findings to make a preliminary assessment of the quality of their vital statistics data.

Calculate the ratio of male births ( $B(m)$ ) to female births ( $B(f)$ ). This ratio should be about 1.05. Significant departures indicate underreporting of births for either males or females, with the latter being the more likely. The pattern of age-specific fertility rates should show a peak level for women aged 25–29 or 30–34 years, and decline thereafter.

Calculate the crude death rate (reported deaths  $\times$  1000/total population size). The rate should be about 5–10 per 1000. Crude death rates below 5 per 1000 should be viewed with suspicion. (Note: the crude death rate should not vary by more than about 3–5% each year. Annual variations greater than this amount should be investigated.)

Plot the log of the age-specific death rate at each age. The graph should show a high rate at ages 1 year and 1–4 years, a trough at ages 5–14 years, a small bump at ages 15–34 years (due to accidents in males, and to maternal mortality and accidents in females), and a consistent increase (seen as a straight line) from about the age of 35 years onwards. Departures from this linear trend with age suggest underreporting or misreporting of age at death.

For comparisons of fertility and mortality rates within and between countries, it is important to standardize for differences in age distributions (24).<sup>8</sup>

All opportunities should be used to further check the plausibility of the vital statistics data, by comparing the fertility and mortality rates from civil registration data with those derived from other sources. Major differences in rates or ratios should be investigated. Rates derived from other sources (such as DHS or UNICEF's multiple indicator cluster surveys (MICS) or some other health or demographic survey) should be used as comparators (see Box 3.8).

## Subcomponent E1 (B): Cause of death

A frequently used indicator of the quality of cause-of-death data is the percentage of all deaths for which the cause is classified as ill-defined (Chapter XVIII of the ICD-10). Ill-defined causes are of no public health value. Also, where they are common, they will make the cause-of-death distribution unreliable, because true causes of death are hidden and hence underestimated. Generally, the percentage of deaths for which the cause is ill-defined should be less than 10% at ages 65 years and over, and less than 5% at ages below 65 years. If the percentage of ill-defined causes has declined significantly, caution must be exercised when interpreting trends in specific causes (such as cancers or heart disease), because changes in death rates from these causes may be largely or entirely due to a redistribution effect from ill-defined to more-specific causes. The need to reduce ill-defined causes of death should not force the certifying doctor to give a

defined cause in all instances: there will inevitably be occasions when a cause of death cannot be indicated with precision. Such, “unknown” causes (code R99) should be measured and tabulated separately, and should not constitute more than about 2–3% of all deaths.

**E1.14 what is the proportion of all deaths allocated to ill-defined categories? (See Annex 1 of Volume 2 of ICD-10 and Section 4.1.10 of ICD-10, Rule A on Senility and other ill-defined conditions.)**

**It is 30%**

**E1.15 Has the proportion of deaths allocated to the ill-defined categories changed over time?**

**Yes the proportion of ill defined categories deaths has been changed over time**

**E1.16 What is the proportion of unknown causes of death among all deaths?**

**Less than 1%.**

Apart from exceptional cases (e.g. HIV/AIDS or other high-mortality epidemics), national cause-of-death patterns do not change significantly in the short term. Simple percentage distributions of deaths by cause will reveal unexpected deviations in patterns of causes of death that should be further investigated. Breaks in series due to ICD version changes may also cause variations, and need to be noted. There is little that can be done to correct for discontinuities caused by changes to the ICD other than conducting in-depth comparability studies, but care should be exercised when interpreting such changes because they are unlikely to be due to real increases (or decreases) in disease rates.

Checking the annual numbers of deaths assigned to specific causes can be sufficient to identify major changes in the use of cause-of-death categories from one year to another. Such changes should not occur without a good reason (e.g. a natural disaster) and should be investigated. It is also important to carry out this consistency check at different levels of data aggregation, particularly for major administrative groups of the country. This will enable users to detect whether the quality of reporting at a local level has changed from one year to another. If so, this should be investigated.

**E1.17 Is the consistency of the national cause-of-death pattern checked over time, including disaggregation comparisons?**

**Yes the consistency of the national cause-of-death pattern checked annually.**

There is a close and predictable relationship between causes of death and life expectancy, which has been validated by long time-series from many different settings. As life expectancy increases, the proportion of communicable, maternal and perinatal causes decreases, while the proportion of noncommunicable diseases (such as heart disease and cancer) increases. These relationships should be used to check the plausibility of the cause-of-death pattern provided by the vital statistics system.

**E1.18 Does the overall cause-of-death distribution seems plausible, e.g. does it fit the expected disease and injury patterns given current national levels of life expectancy (see Box 3.10)?**

**Yes**

Broad causes of death, such as communicable or non-communicable diseases and injuries, show a predictable pattern at different ages. Significant departures from this pattern suggest problems with the quality of vital statistics and can be used to check for plausibility.

**E1.19 Is the age pattern of causes of death obtained from civil registration for major disease groups and injuries consistent with expected patterns? (see Box 3.11)**

**Yes**



It is common for deaths to be certified to vague causes within broad-cause categories. For example, a death may be certified as due to heart failure, arteriosclerosis or some other vague diagnosis. Cancer deaths may be certified to an ill-defined primary site of cancer or to no specified primary site. Understanding the dimensions of such certification practices is important. Both certifying doctors and coders frequently use the three categories referred to below in E.1.20, but they are of limited public health value. In such circumstances, it is important to consult the patient records or to check with the treating physician, to obtain additional information that can be used to correctly certify and code the death.

**E1.20 Further checks on the quality of cause-of-death data can be made using the three measures below. In properly functioning systems with good death certification, the percentage of all cardiovascular, cancer or injury deaths assigned to these codes should not exceed about 10–15%.**

- **What is the proportion of cardiovascular disease deaths assigned to heart failure and other ill-defined heart-disease categories (ICD-10 codes I472, I490, I46, I50, I514, I515, I516, I519, I709)?**  
**Less than 13%**

**What is the proportion of cancers with an ill-defined primary site (ICD-10 codes C76, C80,C97)?**

**Less than 0.1 %**

- **What is the proportion of injury deaths that are of undetermined intent (ICD-10 codes Y10-Y34, Y872)?**  
**Less than 0.2 %**

**Box 3.10 Percent of deaths expected from three broad cause-of-death groups (I–III) as a function of increases in life expectancy**

Life Expectancy (years)	Broad cause-of-death groups			Total (%)
	Group I (%)	Group II (%)	Group III (%)	
55	22	65	13	100
60	16	70	14	100
65	13	74	13	100
70	11	78	11	100

Group I: Communicable diseases, maternal, perinatal and nutritional conditions (ICD-10 codes A00–B99, G00–G04, N70–N73, J00–J06, J10–J18, J20–J22, H65–H66, O00–O99, P00–P96, E00–E02, E40–E46, E50, D50–D53, D64.9, E51–64)

Group II: Noncommunicable diseases (ICD-10 codes C00–C97, D00–D48, D55–D64 (minus D 64.9) D65–D89, E03–E07, E10–E16, E20–E34, E65–E88, F01–F99, G06–G98, H00–H61, H68–H93, I00–I99, J3–J98, K00–K92, N00–N64, N75–N98, L00–L98, M00–M99, Q00–Q99)

Group III: Intentional and non-intentional injuries (including homicide and suicide)( ICD-10 codes V01–Y89)

The table above shows how the relative importance of different broad causes of death changes as the average life expectancy of a population increases. Three broad cause groups are shown:

- Group I – Infectious and parasitic diseases, maternal and perinatal and nutritional causes.
- Group II – Cancers, heart disease, stroke, chronic lung, liver and other noncommunicable diseases, and mental health conditions such as schizophrenia.
- Group III – Injuries, such as accidents, homicides and suicides.

At each level of life expectancy, the typical distribution (as a percentage) of deaths that one might expect to find is shown in the table above. For example, a country with an average life expectancy of 55 years would typically have about 22% of deaths due to group I diseases, and about 65% due to group 2 (i.e. noncommunicable diseases such as cancer, heart disease and stroke). A country with lower mortality and higher life expectancy (e.g. 65 years) would expect a smaller percentage of deaths from group I causes (13%) and a higher percentage from group II causes (74%). In other words, as the life expectancy in a country improves, the relative importance (percentage of deaths) of group I diseases declines, due to better infectious diseases control; hence, more people can be expected to die from noncommunicable diseases or even injuries.

In using this table, first situate the country according to the most recent life expectancy estimates, then interpolate between the percentage distributions in the table to estimate the expected percentage of deaths from groups I, II and III. The expected distribution should be compared to the observed distribution of deaths as calculated from the vital statistics to determine the plausibility of the observed cause-of-death pattern across the three groups. All ill-defined causes should be ignored when making comparisons.

## Subcomponent E2: Data tabulation

The UN recommends that vital statistics be compiled according to date of occurrence. However, in many countries, birth and death statistics are compiled according to date of registration because this is simpler than re-allocating events to the year of occurrence. Vital statistics tabulated by date of registration can be misleading, particularly if a large number of delayed births and deaths are registered as a result of periodic registration campaigns.

### **E2.1 Are births and deaths compiled according to date of occurrence or to date of registration?**

**Compiled to date of occurrence**

Place of occurrence is usually the geographical location (locality/town) where the birth or death took place. For policy and services planning, it is also important to know the place of usual residence of the parents, or of the deceased in case of death registration.

### **E2.2 Are births and deaths compiled according to place of occurrence as well as place of usual residence?**

**Compiled to place of occurrence as well as place of usual residence**

All mortality data should be tabulated separately by age, sex and underlying cause of death. The probability of dying varies substantially at different ages for men and women but can also vary substantially within a country between different regions. Each country should decide what geographic disaggregation of birth and death statistics is appropriate for its policy and planning needs.

### **E2.3 At what level of disaggregation are the birth data tabulated? Report separately for:**

- Sex;
- Sex, and age of mother;
- Sex, age of mother and subregion.

**Disaggregation of birth data tabulated according to sex and age of mother and subregion**

### **E2.4 At what level of disaggregation are the deaths and cause-of-death data tabulated? Report separately for deaths and cause of death for:**

- Sex;
- Sex and age;
- Sex and subregion;
- Sex, age and subregion.

**Disaggregation of deaths and cause of deaths data tabulated according to sex and age of mother and subregion**

The risk of death varies significantly by age, and death statistics should always be compiled according to the age at which death occurred. Countries should use the WHO standard age groupings to do this.

### **E2.5 Are standard WHO age groups used to tabulate mortality and cause-of-death data?**

**No**

Subnational tabulations are important for revealing geographical inequalities in health status with implications for health-services planning.

### **E2.6 What is the smallest subnational level used for tabulating vital statistics? Is this appropriate given the potential uses for disaggregated data?**

**The smallest subnational level is the governorates level.**

Standard tabulation lists are useful for comparing trends in diseases and health status across different populations and time periods. WHO requests countries to report data according to the four-character ICD level.

**E2.7 Are any of the four standard mortality tabulation lists suggested by the ICD used for data presentation purposes?**

**Yes, three-character of ICD level mortality tabulation lists are used**

**E2.8 If not, which condensed list is used? How was this list derived?**

Public health authorities usually want information on the diseases that cause the most premature deaths. Statistics on leading causes of death should always be shown separately for men and women. The level of disaggregation used for the cause-of-death database will influence the ranking of selected diseases and injuries. Comparisons between countries should only be made using comparable ranking lists. Ill-defined causes should not be included when ranking causes of death but shown separately and not included with the residual or other causes category. Some countries include deaths of nationals currently residing outside the country who die overseas in tabulations. If this is the current practice, these deaths and all nationals should be included in the national population estimates when calculating rates.

**E2.9 Are data compiled into 10 leading causes (separately for men and women and children)?**

**Yes but not published separately for men, women and children.**

**E2.10 From which list are the 10 leading causes selected?**

**From the ICD 10 list**

**E2.11 Are ill-defined causes included in the ranking as a category?**

**No, shown separately.**

**E2.12 What proportion of deaths is accounted for by the 10 leading causes of death?**

**Proportion of deaths is accounted for by the 10 leading causes of death is 85%**

### **Subcomponent E3: Data access and dissemination**

**Supplementary material to be prepared in advance:**

- **Compile a list of publications and information products available that use the vital statistics.**

The main data users should be involved in determining the most appropriate cross tabulations and regional breakdowns of the vital statistics data that are relevant to their needs. It is important to solicit feedback from

users about the relevance, utility and quality of vital statistics. There is little point in producing data that are not used, or are regarded as unnecessary.

**E3.1 Who are the main users of the vital statistics:**

- Within government?
- Outside the government?

**The main users within government all the decision makers in all the levels (prime minister, parliaments, policy makers and all the ministries)  
Outside government (researches, academies, postgraduate students, NGOs and others)**

**E3.2 Is there an engagement strategy to regularly discuss data needs with the main data users? If so, describe this.**

**There is no engagement strategy to regularly discuss data needs with the main data users**

**E3.3 Is it possible to provide an example of how vital statistics have been used to guide policy and practice**

**Vital statistics are used by the medical policy department in preparing the plan in the ministry of health to improve the health services to Iraqi citizens**

Timeliness of data is one of the quality criteria that users rate most highly. This is particularly important for local level and small-area data. Data-release dates are important both for producers and users. Keeping to releasedates allows users to plan their work around availability of vital statistics.

Understanding of vital statistics can be facilitated by issuing brief analytical reports based on the data. For example, reports that give a brief account of significant changes in mortality levels, or differences by sex, or trends in leading causes of death are extremely useful. The principal purpose of such reports is to summarize the key messages from the vital statistics for policy use.

**E3.4 What is the time from the end of the reporting period (e.g. end of calendar year in which births and deaths occurred) to the dissemination of:**

- Birth and death statistics?
- Cause-of-death statistics?

**Births and death statistics are disseminated in annual report which is issued in the MOH / planning directorate after the first half of the next year  
Cause –of –death data is compiled an issued in the annual compass and is ready to users but it is not disseminated**

**E3.5 Are analytical reports about birth, deaths and causes of deaths derived from vital registration produced? If so, include examples.**

**There is an analytic report about birth, deaths, causes of deaths derived from vital statistics in the annual report which is prepared and disseminated annually and also there is monthly assessment of the data**

**Example: - the annual report is including the statistical analysis according to variables concerning sex, cause of death and age groups and comparing it with various governorates and various periods of times to know the trends of the rates**

**E3.6 Is there a data-release schedule?**

**Yes there is data –release schedule usually disseminate the annual report after the first half of the year**

To be useful, data have to be accessible to as many legitimate users as possible, preferably in both print and electronic form. Every effort should also be made to ensure that data are available to users at minimal cost. The more the data are used, the more feedback will be received about their quality.

**E3.7 Are vital statistics made available to users as:**

- Print?
- Electronic files?
- Web sites?
- Pdfs?

- **Interactive tables?**

**Yes vital statistics made available to users as: Prints, Electronic files, Web sites, Pdfs, but not interactive tables**

**E3.8 Are the vital statistics available free of charge or at a cost? Please explain.**

**Vital statistics is available free of charge because the policy of the government is to increase the awareness of users and consider health services as a priority**

Official vital statistics should be published annually by a trustworthy government source. The correct use and understanding of the data depends on supplying information about the data ("metadata") along with the data themselves. These metadata ensure that the data are interpreted appropriately by the end users.

**E3.9 What agency publishes the official vital statistics?**

**Ministry of health**

**E3.10 How regularly are the data published or released?**

**The data are published and disseminated annually**

**E3.11 Are all definitions and concepts used in vital statistics publications clearly explained?**

**No, not all definitions and concepts used in vital statistics publications are clearly explained**

It is important for producers of the data to also be users of the data. As well as building essential analytical capacity (and providing quality checks), producers who are also users will help to build the case for improving the quality of vital statistics as their potential value will be better appreciated by those who collect them.

**E3.12 What analyses are being routinely carried out on the data (e.g. fertility patterns, mortality differentials, disease mapping, etc.)?**

**There is statistical analysis to all the data which is scientific and logical to identify all the data**

**E3.13 Along with the statistical tables, are analyses of the data published regularly?**

**Yes the statistical tables and analyses of the data published regularly**

**E3.14 How are these data being used at various levels?**

**These data are used differently at various levels**

**E3.15 Is there any attempt to build analytical capacity among staff who collect and compile vital statistics to perform basic analyses of the data to help them better understand the value and purpose of the data which they collect? If not, how could this be achieved?**

**Yes there is attempt to build analytical capacity among staff who collect and compile vital statistics to perform basic analyses of the data to help them better understand the value and purpose of the data which they collect by applying training courses to them**