**Chapter 2 Demography – answers**

Self assessment

Question 1 of 14

Answer C

Question 2 of 14

Answer B. Morbidity is about the burden of illness in a community, which is not directly relevant to demographers as it does not affect the size of the population.

Question 3 of 14

Answer C. The other countries population pyramids have a wide base (the population has a greater number of younger people) due to high fertility, and a narrow apex due to low life expectancy.

Question 4 of 14

Answer B. Morbidity, which is the burden of disease in a community, does not directly influence either the size or the age distribution of the population.

Question 5 of 14

Answer D. The reasons women give for not attending cervical screening represent the perceptions and views of women.

Question 6 of 14 Answer C

Depending on the age structure of the population, SMR values can be above or below 100. Question 7 of 14

Answer C – the health status of this population is worse than the reference population as there is a higher death rate after adjusting for the differences in age structure.

SMR takes into account the differences in the age structures of populations. We cannot tell what whether most causes of death in this population were preventable as from the SMR alone we cannot identify causes of deaths.

Question 8 of 14 Answer B Question 9 of 14

Answer D – respiratory infection. Infants generally die of this cause in the first few months and years of life.

Question 10 of 14

Answer B

Although still birth rate will be affected to some degree, perinatal mortality is most influenced by these interventions. More specific, targeted measures address infant mortality, for example childhood immunisation. Interventions that reduce maternal mortality include action to assist pregnancy, delivery and puerperium, to increase both the coverage and the quality of medical care, prenatal care, institutional care to delivery, and post-partum care.

Question 11 of 14 Answer B

Question 12 of 14

Answer C – every ten years. As the censuses are very expensive and require a lot of preparation, they are carried out every ten years – a decennial census.

Question 13 of 14

Answer D – they are time-consuming to collect and analyse. In countries where death certification is routine and mandatory, this becomes less of an issue.

Question 14 of 14

Answer C

Short answer questions

Question 1 of 12

Total fertility rate is the number of children that would be born per woman if she were to live to the end of her child bearing years and bear children in each age group in accordance with prevailing age-specific fertility rates.

Question 2 of 12

These factors include: universality of marriage, lower age at marriage, low level of literacy, poor standards of living, limited use of contraception and traditional ways of life.

Question 3 of 12

Fertility, mortality, marriage, migration and social mobility.

Question 4 of 12

Demography is the scientific study of human populations. It involves analysis of three observable phenomena: changes in population size, the composition of the population and the distribution of populations in space. Demographers study five processes: fertility, mortality, marriage, migration and social mobility. These processes determine populations’ size, composition and distribution. Basic understanding of demography is essential for public health practitioners because the health of communities and individuals depends on the dynamic relationship between the numbers of people, the space which they occupy and the skills they have acquired.

Question 5 of 12

Life expectancy at birth is the average number of additional years a person could expect to live if current mortality trends were to continue for the rest of the person’s life.

Question 6 of 12

Demographic transition describes the change from high fertility and high mortality rates in more traditional societies to low fertility and low mortality rates in so-called modern societies.

Question 7 of 12

Epidemiological transition refers to long-term changes in the patterns of sickness and disability that have occurred as societies have changed their demographic, economic and social structures.

Question 8 of 12

SMR is the ratio of the deaths observed in the study population to the number of deaths that would have occurred if the study population had the age and sex-specific death rates of the reference population, multiplied by 100. This is the most common type of standardisation in the UK and is used to compare populations differentiated by factors such as geographical region, time and social class.

Question 9 of 12

The directly standardised death rate is the death rate that would have occurred in the reference population if it had had the age and sex-specific death rates of the population being studied (the study population). However, the death rates of every age group must be known, which is tedious if more than one population is being studied and may not be available.

Question 10 of 12

Data are not without flaws and they should never be used without first considering their completeness, accuracy and relevance. You should ask the following questions of any data obtained (Box 2.3):

1. Are the data related clearly to specific ages and sexes? If the disease or

determinant in which you are interested varies by age or sex, you may need

to standardise rates to allow comparisons.

2. Are the data clearly related to a specific time period? Time trends are helpful

in supporting the planning of health-care or other public health interventions Data often take time to collate, and it is important to use the most up-to-date

information available.

3. Are the data clearly related to specific geographical locations? You need to

ensure that the data you have are related to your population and take care in

extrapolating information from other populations to your own.

4. Are the data complete? Are there any population groups missing? Some causes

of death may be more easily identified and recorded more frequently than

others and some may carry stigma (e.g. HIV) and be less well recorded.

Population surveys of self-reported health have variable uptake rates and

may not be representative of the whole population. Are the same data

collected across geographical areas? Data coverage in rural areas may be less

complete than urban ones.

5. Are the data accurate? What do the definitions of data fields mean?

For example, what clinical indications would a field called ‘CHD’ include?

Has it been transcribed from original data, allowing the introduction

of errors? Are the data coded and are the codes used in the same way by

everyone? Have the definitions or codes changed over time if you are

looking at time trends?

6. Are the data relevant to the question you have? It is often tempting to use

readily available routine data without real thought as to whether they are right

for the job!

Question 11 of 12

Life expectancy is the average number of years of life remaining to a person at a particular age and is based on a given set of age-specific death rates, generally the mortality conditions existing in the period under consideration.

Question 12 of 12

Values for the index of multiple deprivation have been calculated by combining deprivation results in the following areas: income deprivation; employment deprivation; health and disability deprivation; educational deprivation; skills and training deprivation; housing and services deprivation; living environment and crime.