

## Introduction to Demographic Methods

### Session 5 Exercise

1. Given the following births and infant deaths recorded in Belgium in 1967 and 1968:

Year	Birth Cohort	Age (yrs)	Deaths	Births
1967	1967	0	2,893	142,471
1968	1967	0	481	--
1968	1968	0	2,603	138,214
1969	1968	0	302	--

(a) Check the correct conventional infant mortality rate for 1968.

21.3    22.3    23.3 per 1,000

(b) Check the correct cohort probability of dying under age 1 for 1968.

21.0    22.0    23.0 per 1,000

(c) Check the correct adjusted infant mortality rate for 1968 relating a death to the birth in the appropriate year.

21.2    22.2    23.2 per 1,000

(d) Check the correct adjusted infant mortality rate for 1968 using separation factors .

20.2    21.2    22.2 per 1,000

2. Check the correct definition of early neonatal mortality "rate".

- Number of deaths of newborns in the first hours of life per 1,000 births
- Number of deaths of newborns in the first day of life per 1,000 births
- Number of deaths of newborns in the first week of life per 1,000 births
- Number of deaths of newborns in the first month of life per 1,000 births

3. Check the correct answer.

Is the probability of death from a given set of data for a one-year age group always higher or lower than the corresponding cohort death rate for the same age group (a Lexis diagram may help you understand the relationship)?

Higher    Lower

4. Which of the following are true [T] and which are false [F]?

	T	F
If the number of births varies from one year to the next but the cohort probabilities of death are constant, then the conventional period infant mortality rates and the cohort infant mortality rates will be equal		
If the cohort probabilities of death for various birth cohorts have remained constant over time, then the period and cohort rates will be identical		

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### Session 5 Answers

1.

- (a) 22.3
- (b) 21.0
- (c) 22.2
- (d) 22.2

2. Number of deaths of newborns in the first week of life per 1,000 births

3. Lower

4. F, F