

## Introduction to Demographic Methods

### Session 6 Exercise

1.

	United States 1970		Hong Kong 1971	
Age	Males		Males	
Group	Population	Deaths	Population	Deaths
0	1777915	42847	33641	828
1-4	6967584	6494	159525	178
5-9	10168496	5054	259283	126
10-14	10590737	5437	267671	119
15-19	9633847	15207	219657	168
20-24	7917269	17869	173211	205
25-29	6621567	13421	107121	197
30-34	5595790	12878	117066	235
35-39	5412423	17004	129490	368
40-44	5818813	28214	133659	580
45-49	5851334	44275	112946	724
50-54	5347916	63066	100968	1056
55-59	4765821	88509	74933	1354
60-64	4026972	112202	52292	1576
65-69	3122084	128563	28393	1219
70-74	2315000	136432	17441	1125
75-79	1560661	135416	7738	725
80-84	875584	108457	3815	428
85+	542379	96660	1752	265
Unknown	-	473	-	-
Total	98912192	1078478	2000602	11476

(a) Check the correct crude death rate for the U.S. 1970

9.9    10.9    11.9 per 1,000

(b) Check the correct crude death rate for Hong Kong 1971

3.7    4.7    5.7 per 1,000

(c) Check the correct directly standardized death rates for the U.S., standardizing on the U.S. 1970 population age distribution

9.9    10.9    11.9 per 1,000

(d) Check the correct directly standardized death rates for Hong-Kong, standardizing on the U.S. 1970 population age distribution

10.6    11.6    12.6 per 1,000

e) Check the correct indirectly standardized ratio for the U.S., using Hong-Kong age-specific mortality rates in the process  
 0.9    1.0    1.1

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

	T	F
For indirect standardization you do not need the rates in the study population but for direct standardization you do		
If the age-specific death rates in country A are greater than those in country B for every age group, then the directly standardized death rate for country A will always be greater than that for country B, regardless of what population is used as a standard.		
If the age-specific death rates in country A are greater than those in country B for every age group, then the indirectly standardized death rate for country A will always be greater than that for country B, regardless of what population is used as a standard.		
If two populations have the same total number of deaths and the same age distributions then their indirectly standardized death rates will be identical regardless of the standard population chosen even though the age-specific rates may be different in the two original populations		

3. The crude death rate in Mexico is lower than the crude death rate in the U.S.A. Is the directly standardized death rate for Mexico higher [H] or lower [L] than that of the U.S.?

	L	H
If the U.S. population age distribution is used as standard?		
If the Mexican population age distribution is used as standard?		

## Introduction to Demographic Methods

### Session 6 Answers

1.

- a) 10.9
- b) 5.7
- c) 10.9
- d) 10.6
- e) 1.0

2. T, T, F, T

3. H, L