

# Problem Set 3

## Demography Camp

Summer 2013

### Question 1

In 2010, the United States had a CDR of 8 per 1000, while Tunisia's was slightly lower at 6 per 1000. However, USA has a higher life expectancy (79 versus 75). How can this be?

### Question 2

Table 1:  ${}_nM_x$  and  ${}_nC_x$

Age	Pop A		Pop B	
	${}_nM_x$	${}_nC_x$	${}_nM_x$	${}_nC_x$
0-1	0.002	30%	0.002	10%
1-2	0.002	20%	0.001	10%
2-3	0.002	20%	0.002	10%
3-4	0.003	10%	0.002	20%
4-5	0.003	10%	0.003	20%
5-6	0.003	10%	0.003	30%

#### Part A

Calculate the CDR for each population.

#### Part B

Calculate the CDR for each population if they had a standardized age distribution (use the average of the two population's  ${}_nC_x$ ).

#### Part C

Discussing the differences with Pop A and Pop B in terms of age structure and age specific mortality rates, explain why we see a reversal of CDR order when we use a standardized age distribution.