

Cervical Cancer Incidence and Trends Among Nationals of the Gulf Cooperation Council States, 1998-2012



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Background:

Cervical cancer is the ninth most common cancer in women in the Gulf Cooperation Council states (GCC: Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and the United Arab Emirates). GCC states share similar demographic, socioeconomic and cultural backgrounds. The Gulf Centre for Cancer Control and Prevention (GCCCP) has maintained a database of cancer in the GCC states since 1998.

Methods:

- Women diagnosed with invasive cervical cancer during the 15 years 1998-2012 were included (N=2,332).
- Age-specific incidence over three periods (1998-2002, 2003-2007 and 2008-2012) are presented for all states combined.
- We compare trends in the number of women diagnosed with cervical cancer, average annual age-standardised incidence rates (ASIRs) and the distribution of stage at diagnosis for the six member states and GCC average.

Results:

Age distribution:

- Median age at diagnosis was 39 years, ranging from 39.7 in the UAE to 43.9 in Bahrain.
- There was a slight shift towards older age at diagnosis between 1998-2002 and 2008-2012.

Figure 1: Age-specific frequency distribution by period of diagnosis (GCC average).

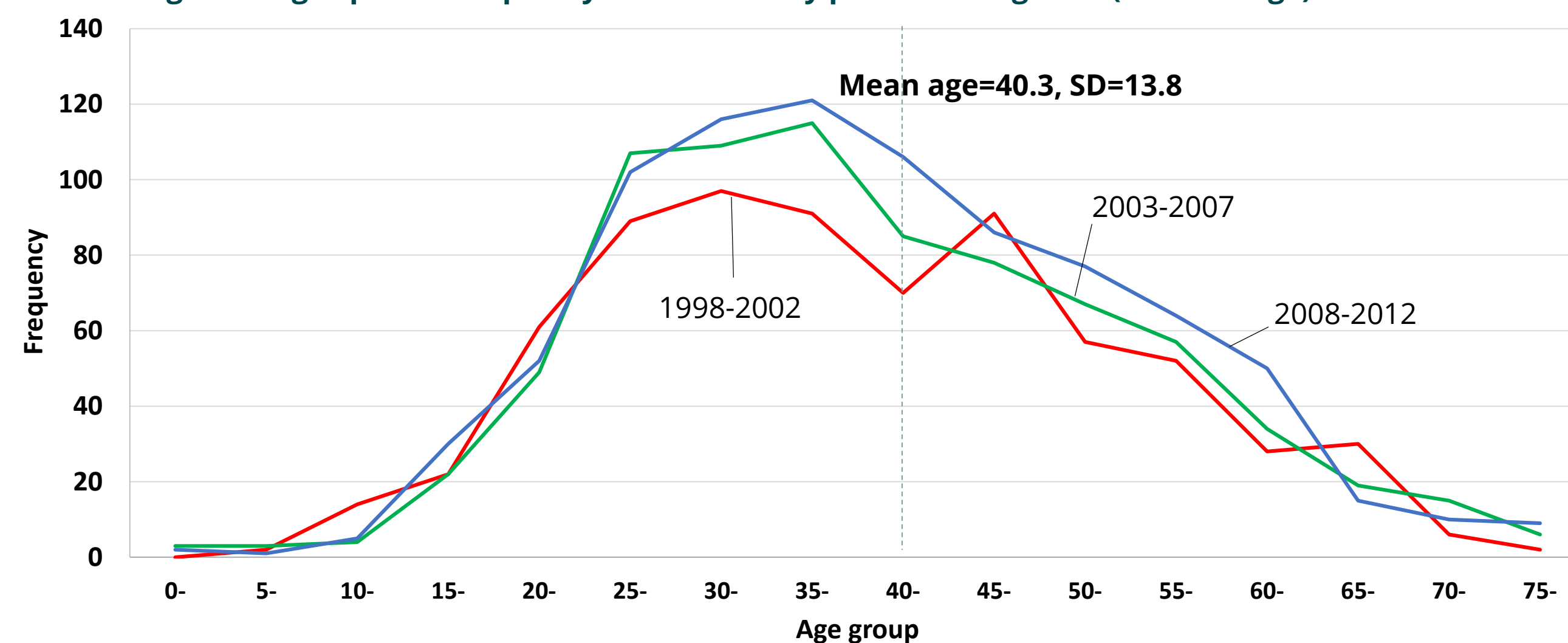
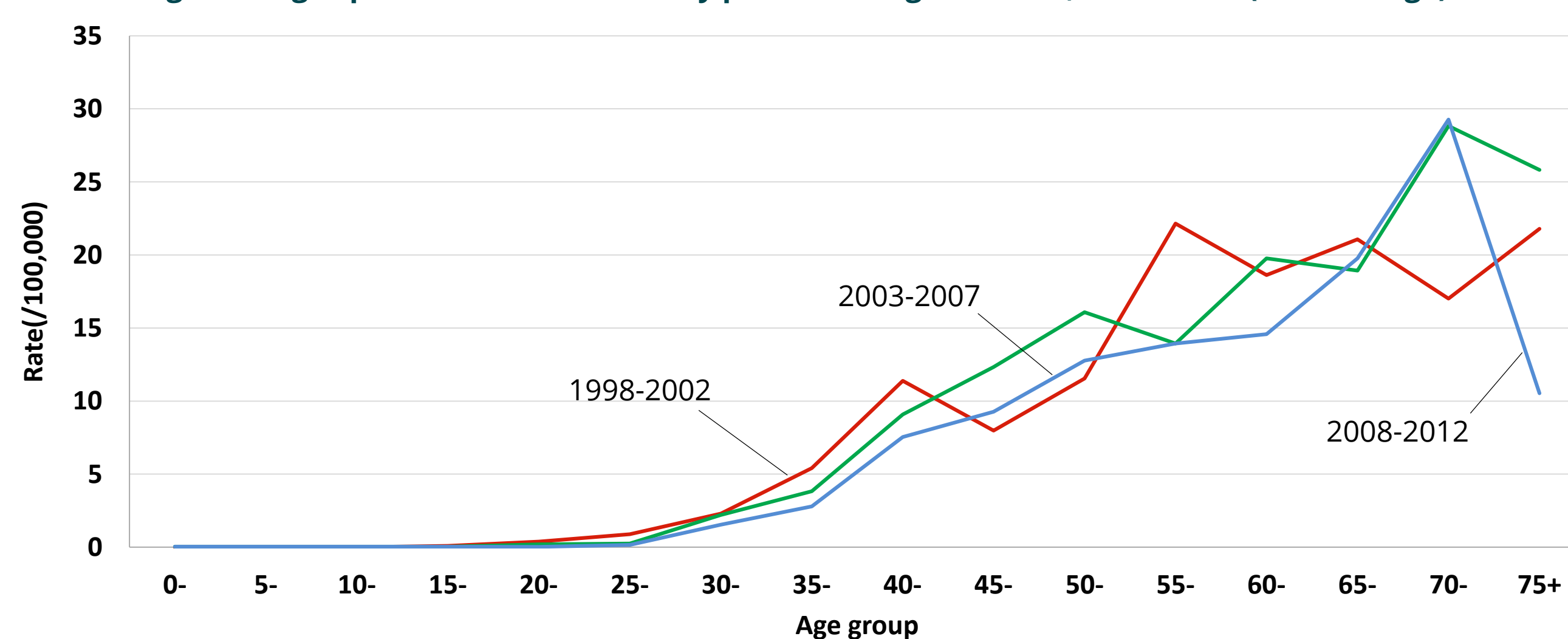


Figure 2: Age-specific incidence rates by period of diagnosis /100,000 women (GCC average).



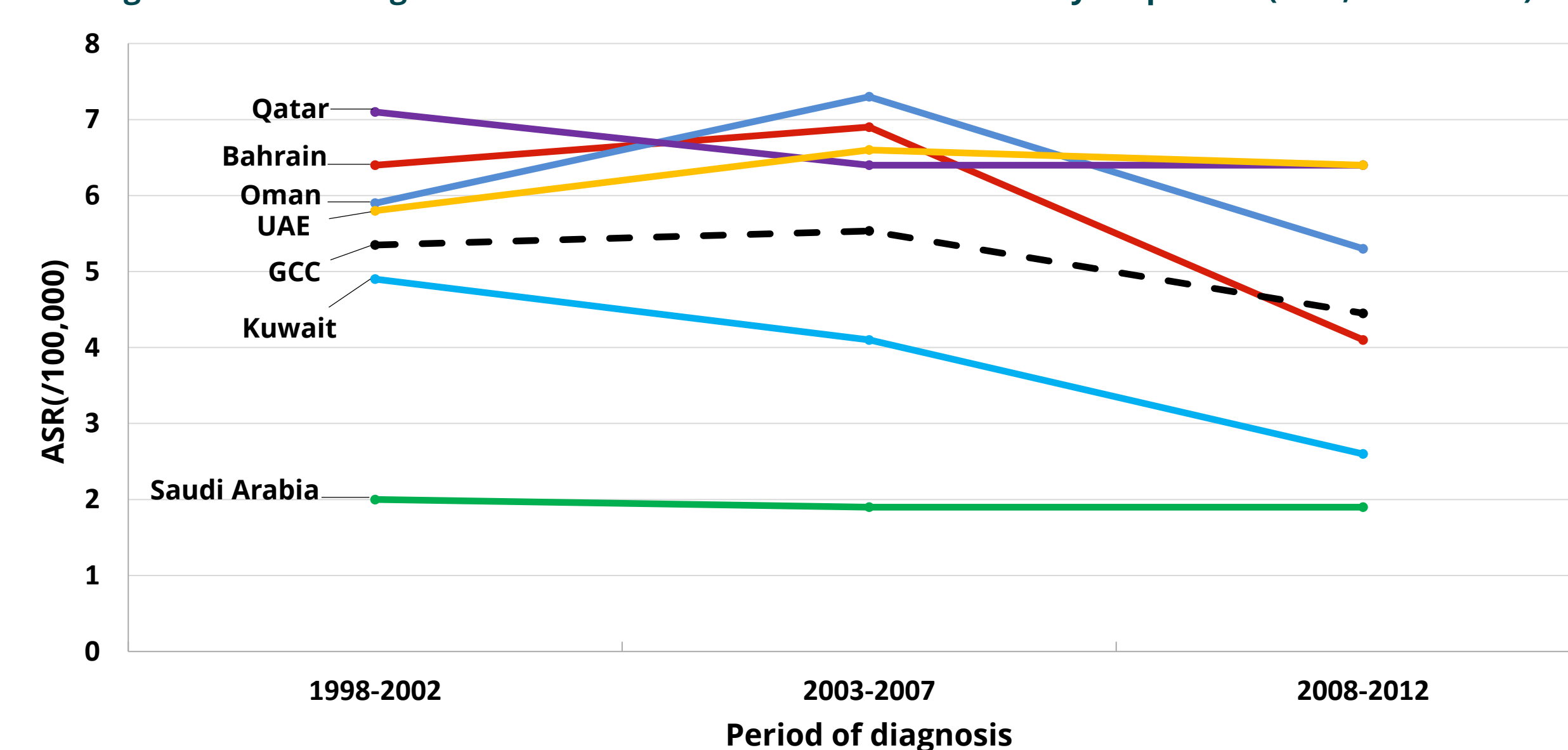
Age-standardised incidence rates

- A decline in ASIR was observed for all GCC states except the UAE.
- Number of women with cervical cancer increased in Saudi Arabia.

Table 1: Number of women and average annual age-standardized incidence rates (ASIR/100,000 women) by calendar period.

	1998-2002		2003-2007		2008-2012		Total
State	Women	ASIR	Women	ASIR	Women	ASIR	Women
Bahrain	40	6.4	44	6.9	42	4.1	126
Kuwait	59	4.9	62	4.1	52	2.6	173
Oman	122	5.9	136	7.3	127	5.3	385
Qatar	16	7.1	12	6.4	17	6.4	45
Saudi Arabia	422	2.0	456	1.9	540	1.9	1,418
UAE	53	5.8	64	6.6	68	6.4	185
GCC	712	5.4	774	5.5	846	4.5	2,332

Figure 3 Trends in age standardized incidence rates over three 5-year periods (/100,000 women).



Conclusion

- Cervical cancer age-standardised incidence rates in the GCC states are among the lowest in the world.
- The distribution of stage at diagnosis is unfavourable compared to other high-income countries.
- Monitoring incidence trends helps to plan future diagnostic and treatment services, give an indication of changing risk factors and evaluate the effectiveness of preventive measures.
- Monitoring the distribution of stage at diagnosis reflects the success of both screening and early diagnosis. Stage at diagnosis is the most important determinant of cervical cancer survival. Therefore, recording of stage data should be improved.
- Assessing survival would further help to evaluate cancer control in GCC states.

Stage at diagnosis

- Most women were diagnosed at a regional stage of disease.
- The proportion of women with unknown stage increased in Kuwait, Oman and the UAE.

Figure 4: Distribution of stage at diagnosis by country (SEER Summary Stage), 1998-2012.

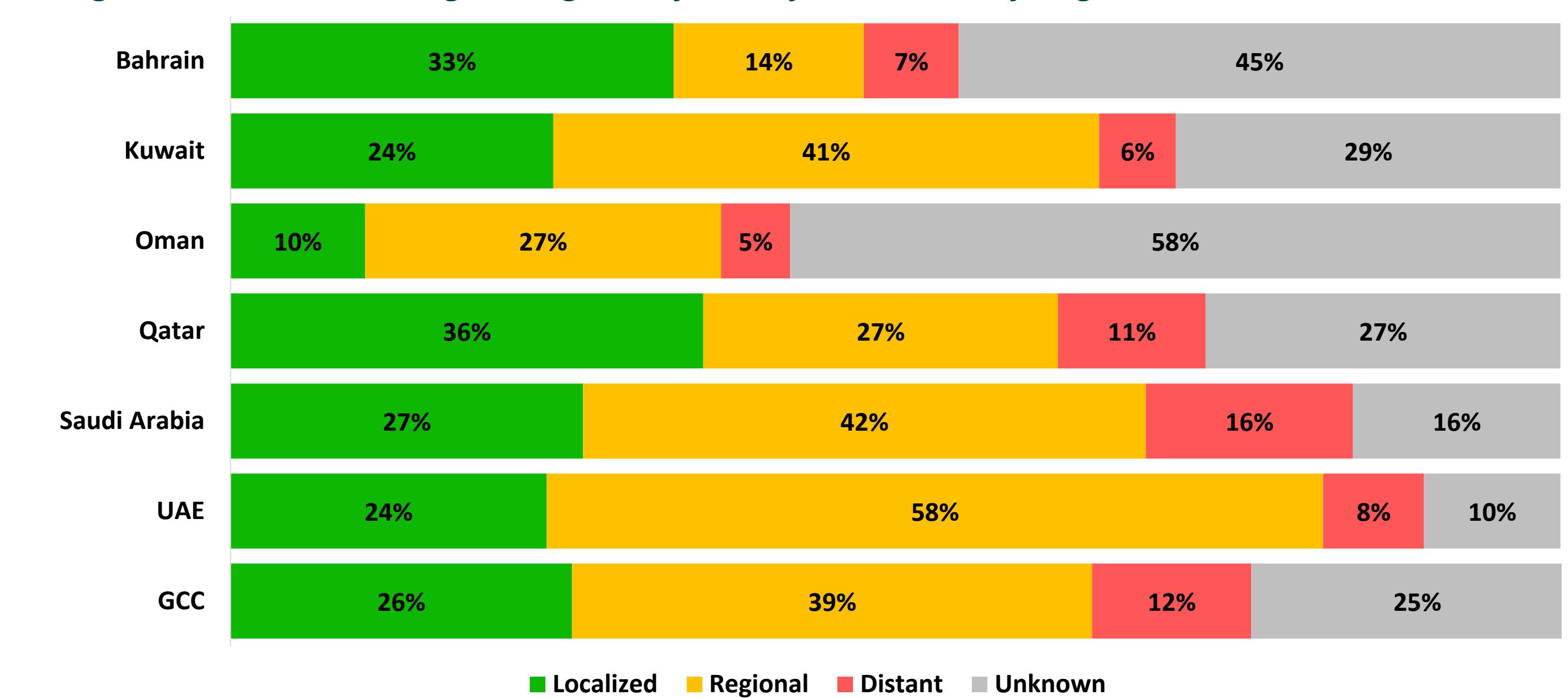


Figure 5 Trends in stage distribution (SEER Summary Stage, %) for each GCC member state by calendar period.

