

PREVALENCE OF ABNORMAL CERVICAL CYTOLOGY AMONG SUBFERTILE SAUDI FEMALES.

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OVERVIEW

- Cervical CA Background;
 - International
 - Saudi Arabia
- Study Details.
- Results.
- Conclusion.
- Comparison.
- Recommendations.



BACKGROUND



CERVICAL CANCER

2nd most common cancer in women worldwide,

Estimated 493,000 new cases and 274,000 deaths
in the year 2002.

Parkin D et al. Global Cancer Statistics, 2002. CA Cancer J Clin 2005;55:74-108.



CERVICAL CANCER

Developing countries;

More common

83% of cases occur

Risk <65 yrs of 1.5%.

Developed countries;

Less common.

3.6% of new cancers.

Risk <65 yrs of 0.8%.

Parkin D et al. Global Cancer Statistics, 2002. CA Cancer J Clin 2005;55:74-108.



PAPANICOLAOU SMEAR

- In use since 1940.
- Helps in early detection of cervical cell abnormalities.
- Reduced incidence of cervical cancer;
 - Timely response to abnormal changes on cytology.
- Sensitivity 70-80%

Papanicolaou GN. The diagnostic value of vaginal smears in carcinoma of the uterus. Am J Obstet Gynecol 1941;42:193-206.



SCREENING PROGRAMS

Cervical screening programs among sexually active women;

- Applied at the national level in the US, UK, Canada, and Australia.
- It has lead to remarkable reduction in incidence and mortality from cervical cancer.

US Preventive Services Task Force. Am Fam Physician 2003;67:1759-66.

Kaplan N. Canadian family physician 2007;53:693-697.

Raffle A et al. British medical Journal 2003;326:901.

Sheary B. Australian Family Physician 2005; 34: 578-580.



LIQUID BASED CYTOLOGY

- Improved detection rates of squamous cell abnormalities.
- Approved by the US, FDA in 1996.
- Now has become standard practice internationally.
- Sensitivity 85-90%

Helmerhorst T. Liquid-based cytology method had a higher sensitivity for detecting cervical lesions than conventional Pap test. Evidence-based Obstetrics & Gynecology. - September 2006; 8(3); 118-119.



SAUDI ARABIA



CERVICAL CANCER

- 7th most frequent cancer in Saudi women.
- 8th most frequent cancer among women aged 15-44 yrs.
- 6.51 million women (age >15) are at risk of cervical cancer.

WHO/ICO. Summary report on HPV and cervical cancer statistics in Saudi Arabia. 2007; IV: 3-12. updated 2010.



INCIDENCE OF CA CERVIX

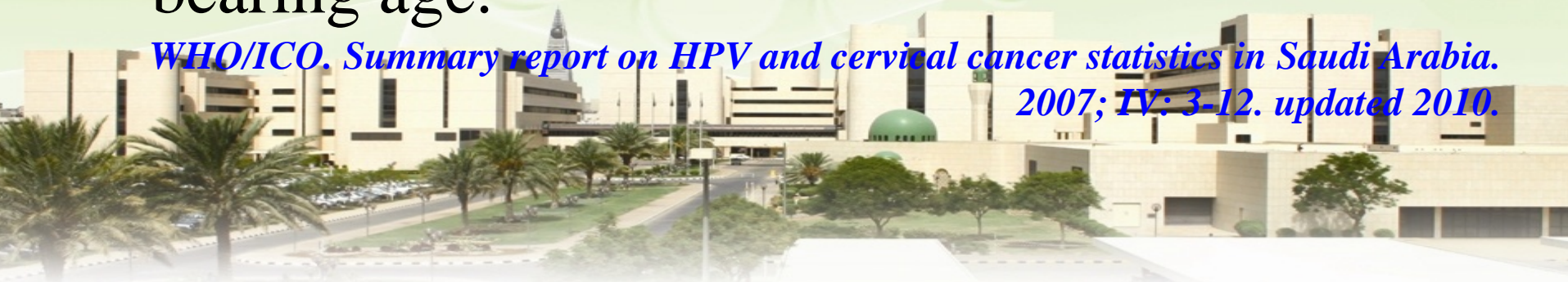
Crude incidence rate of cervical cancer; (2002)

- 2.7/100,000 in Saudi Arabia
- 16/100,000 world rate.

Yearly incidence of cervical cancer,

- 271 Saudi women
- Of whom 68 (25.1%) occur in women of child bearing age.

WHO/ICO. Summary report on HPV and cervical cancer statistics in Saudi Arabia. 2007; IV: 3-12. updated 2010.



MORTALITY OF CA CERVIX

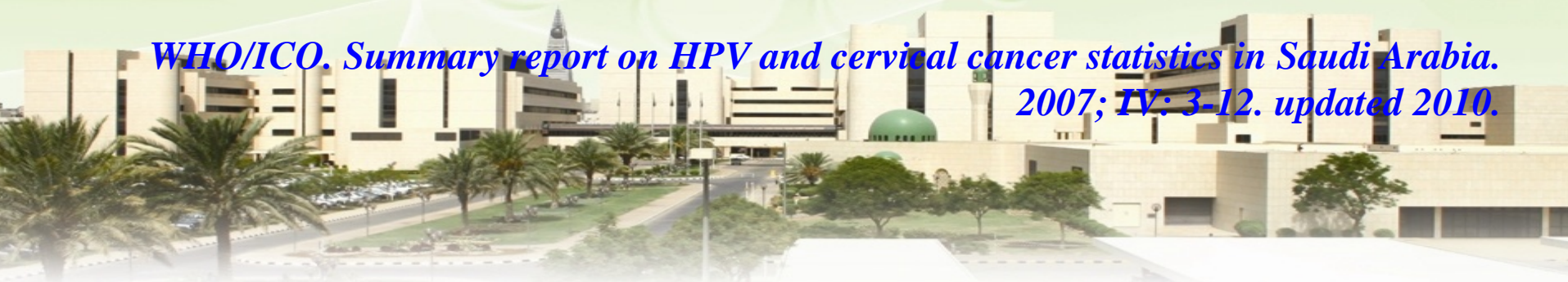
Mortality (Of these 271);

- 143 (52.8%)
- Including 27 (39.7%) of child bearing age

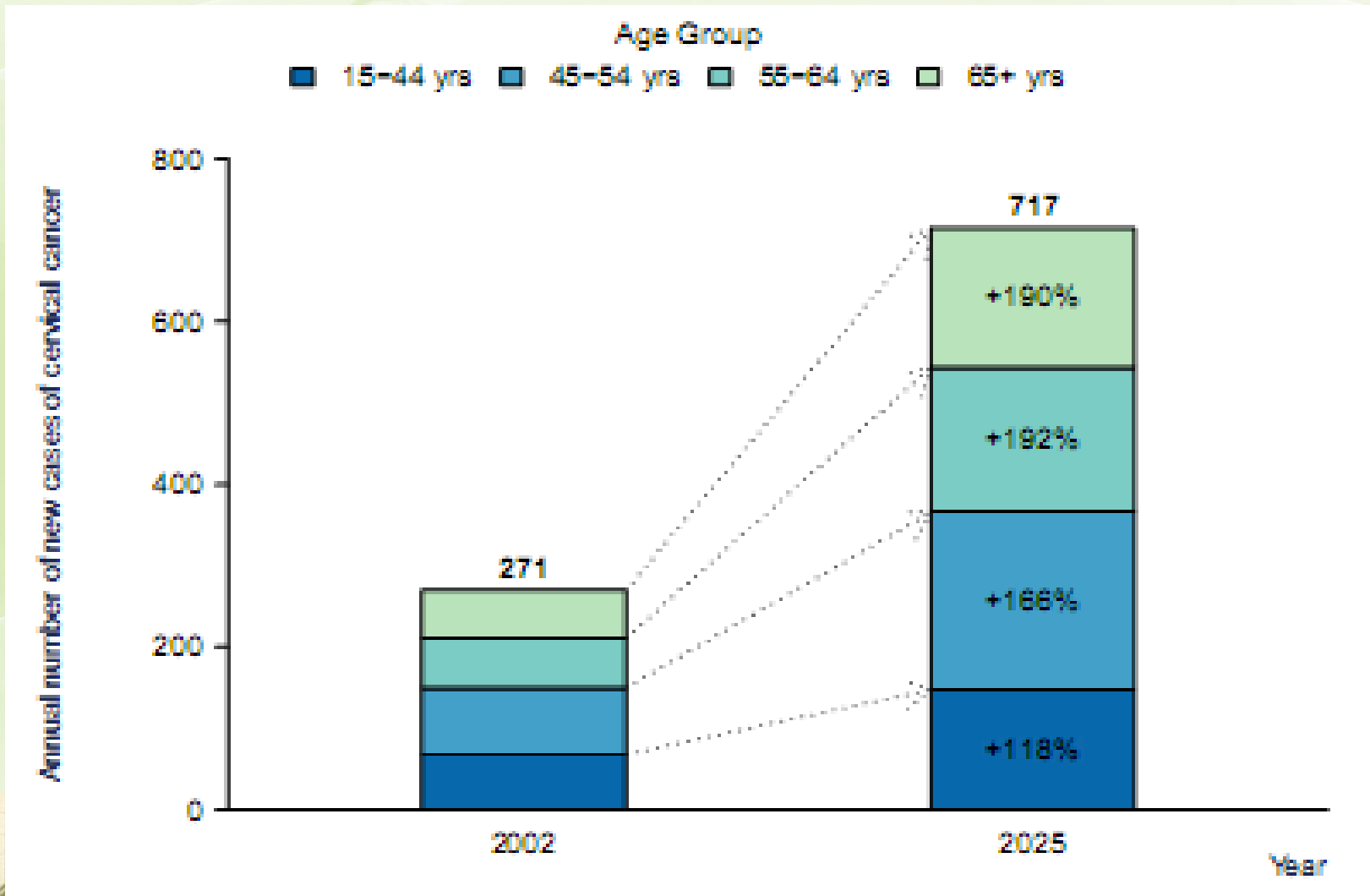
Population-based mortality;

- 1.4/100,000 in Saudi Arabia
- 8.9/100,000 rest of the world,

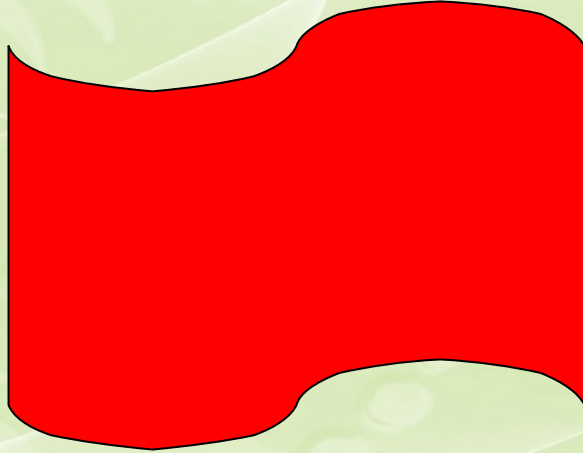
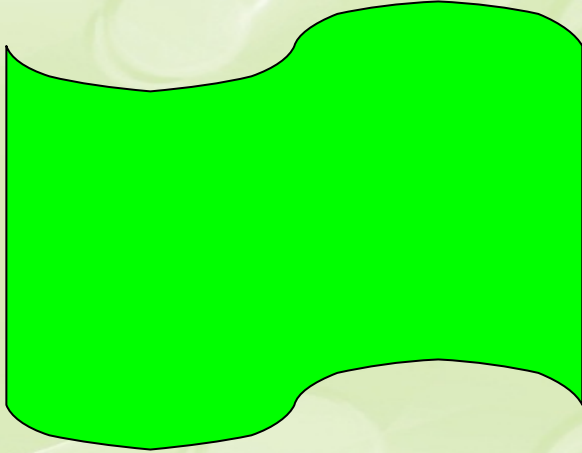
WHO/ICO. Summary report on HPV and cervical cancer statistics in Saudi Arabia. 2007; IV: 3-12. updated 2010.



ESTIMATED NEW CASES IN 2025



WHO/ICO. Summary report on HPV and cervical cancer statistics in Saudi Arabia. 2007; IV: 3-12. updated 2010.



**PREVALENCE OF ABNORMAL
CERVICAL CYTOLOGY AMONG
SUBFERTILE SAUDI FEMALES.**

**DO WE NEED TO STEP
FORWARD?**



MATERIAL & METHODS

- Reproductive Medicine Unit, Women's Specialized Hospital, Riyadh.
- IRB approval obtained.
- Retrospective, hospital based, cross-sectional, chart review.
- Jan 2008- Feb 2009. (14 months)



MATERIAL & METHODS

Liquid Based smear;

- Done for all women presenting with subfertility
- Informed consent was taken.
- Results reported according to revised Bethesda system 2001.



MATERIAL & METHODS

Data was acquired from the medical records;

- Cervical smear results,
- Pt's age, duration & description of subfertility,
- Medical & surgical history, and
- Complaints, if any, at initial presentation.



RESULTS

- Total number of patient's= 493.
- Cervical smear was done= 241. (48.9%)
- Absent risk factors for cervical cancer:
 - Smoking, HIV, Aberrant sexual behavior



RESULTS

- Mean age 30.1 ± 5.6 (Range=18-43 yr)
- Major causes of subfertility;

Female factor:	97 (40.2%)
Male factor:	84 (35%)
Unexplained:	37 (15.3 %)
Combined:	23 (9.5%)



RESULTS

- Cervical cytology n (241)

Normal	166	(68.9%)
Abnormal	71	(29.5%)
Unsatisfactory	4	(1.7%)



RESULTS

ABNORMAL CERVICAL SMEAR (n = 71)		
Type of Abnormality	Cases	% of 241
Epithelial cell abnormality	7	2.9
Inflammation	55	22.8
Infection	9	3.7



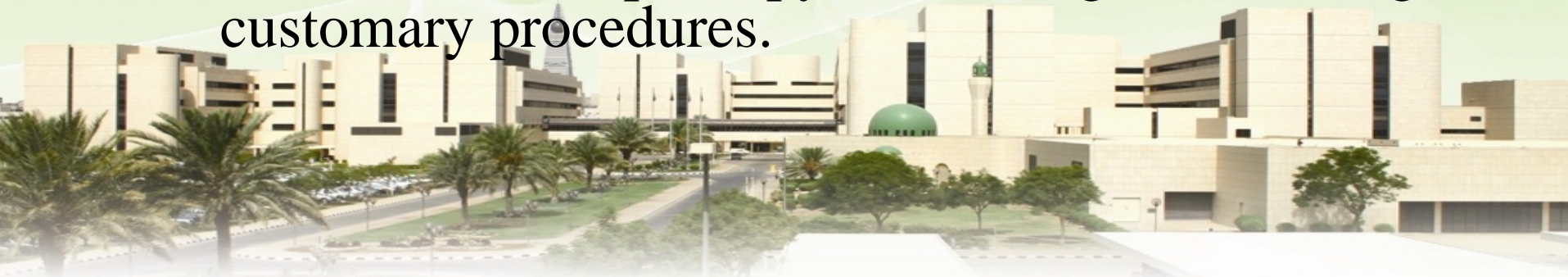
EPITHELIAL CELL ABNORM.

Type	No.	Percentage
ASC-US	3	43
ASC-H	1	14
AGS	1	14
LSIL	2	28
HSIL	0	0
Invasive CA	0	0



MANAGEMENT

- Pt's with abnormal results were managed accordingly.
- Patients with infection;
 - Appropriate antibiotic course given.
- Patients with epithelial cell abnormalities;
 - Referred for Colposcopy and managed following customary procedures.



COMPARISON



NATIONAL LEVEL

Study	Duration	Patients	Age	Normal	Abnormal	Epi cell abnorm	Inflamm
Abdullah L	1998-2005	5590	18-89	(4304) 77%	(1268) 23%	(261) 5%	(1025) 18%
Mansoor I	1994-2000	22089	36-55	(21721) 98%	(368) 1.66%	(348) 1.6%	(20) 0.1%
Altaf F	1990-1997	3088	43.2	(2991) 97%	(97) 3.14%	(69) 2.2%	(28) 0.9%
AlJaroudi D	2008-2009	241	18-43	(166) 68.9%	(71) 29.5%	(7) 2.9%	(64) 26.5%

Abdullah L. Annals of Saudi Medicine 2007; 27(4):268-272.

Mansoor I. The Internet Journal of Pathology 2002; 2(1);ISSN:1528-8307

Altaf F. Saudi medical journal 2006;27:1498-1502.



INTERNATIONAL LEVEL

Study	Duration	Patients	Age	Normal	Abnorm	Epi cell abnorm	Inflam
Hamont D	2000-2003	669/77055	29-42	93/96	6.1/3.9	2.4/1.57	??
Lundqvist	2002	214/197	20-40	97/96	??	2.3/4.1	7/9
AlJaroudi D	2008-2009	241	18-43	(166) 68.9%	(71) 29.5%	(7) 2.9%	(64) 26.5%

*Hamont V et al. Human reproduction 2006;21:2359-2363.
Lundqvist M. Acta Obstet Gynecol Scand 2002;10:949-53.*



SUMMARY

- Reproductive age Females;
 - 6.51 million Saudi women are at risk of cervical cancer.
 - 1 in every 4 women is diagnosed to have cervical cancer.
 - 40% of death from cervical cancer in Saudi Arabia.



CONCLUSIONS

- Acceptance of cervical screening is disturbingly low. (48.9%)
- Prevalence of epithelial cell abnormalities is more than known for subfertile population.
- Cases of infection/inflammation are markedly high. (26.5%)



RECOMMENDATIONS

- Acceptance of cervical screening is disturbingly low. (48.9%)
Educate the target group.
- Prevalence of epithelial cell abnormalities is more than known for subfertile population.
Screening for HPV in women with epithelial cell abnormality.
- Cases of infection/inflammation are markedly high. (26.5%)
Larger RCT's are needed.

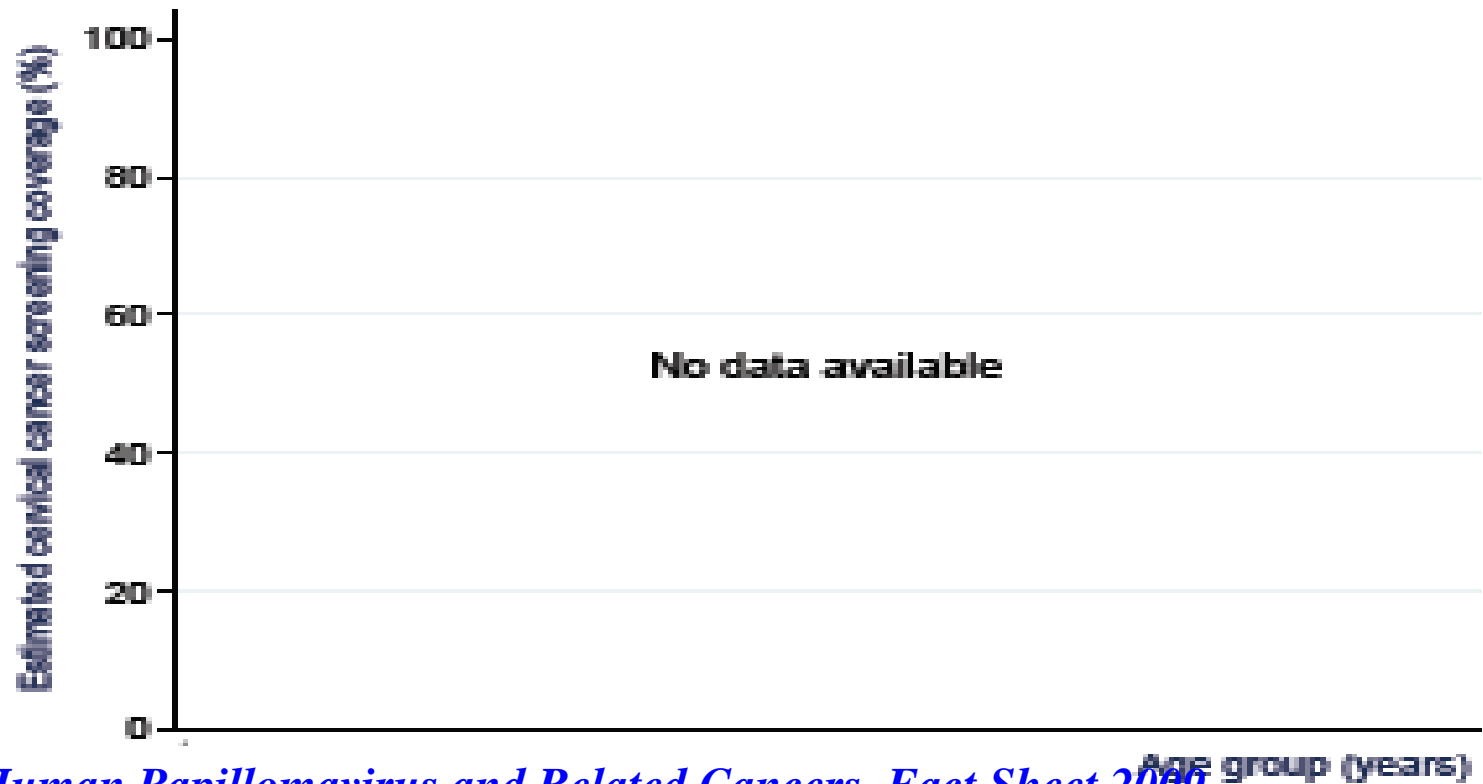


RECOMEMNDATIONS

- A well-organized screening program for cervical abnormalities should be implemented at the national level for all women.



Figure 2. Estimated coverage of cervical cancer screening, by age and study



Human Papillomavirus and Related Cancers, Fact Sheet 2009



RECOMMENDATIONS

- A well-organized screening program for cervical abnormalities should be implemented at the national level for all women.
- ? HPV Vaccine.



Thank You!

