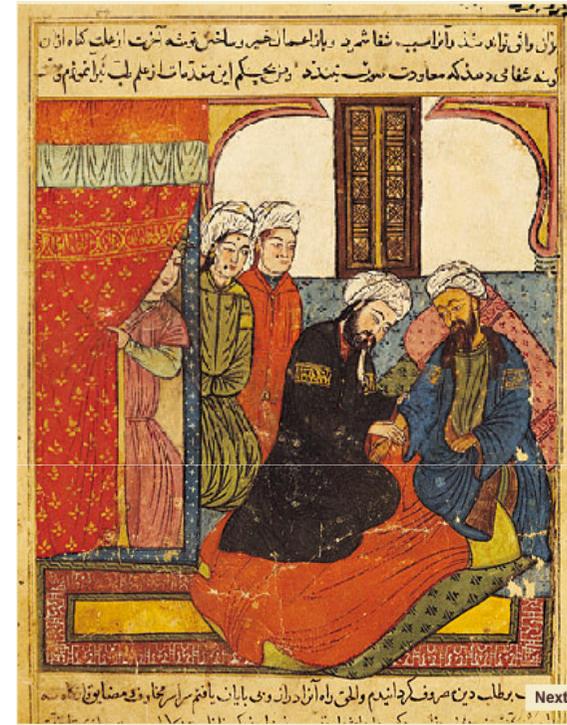


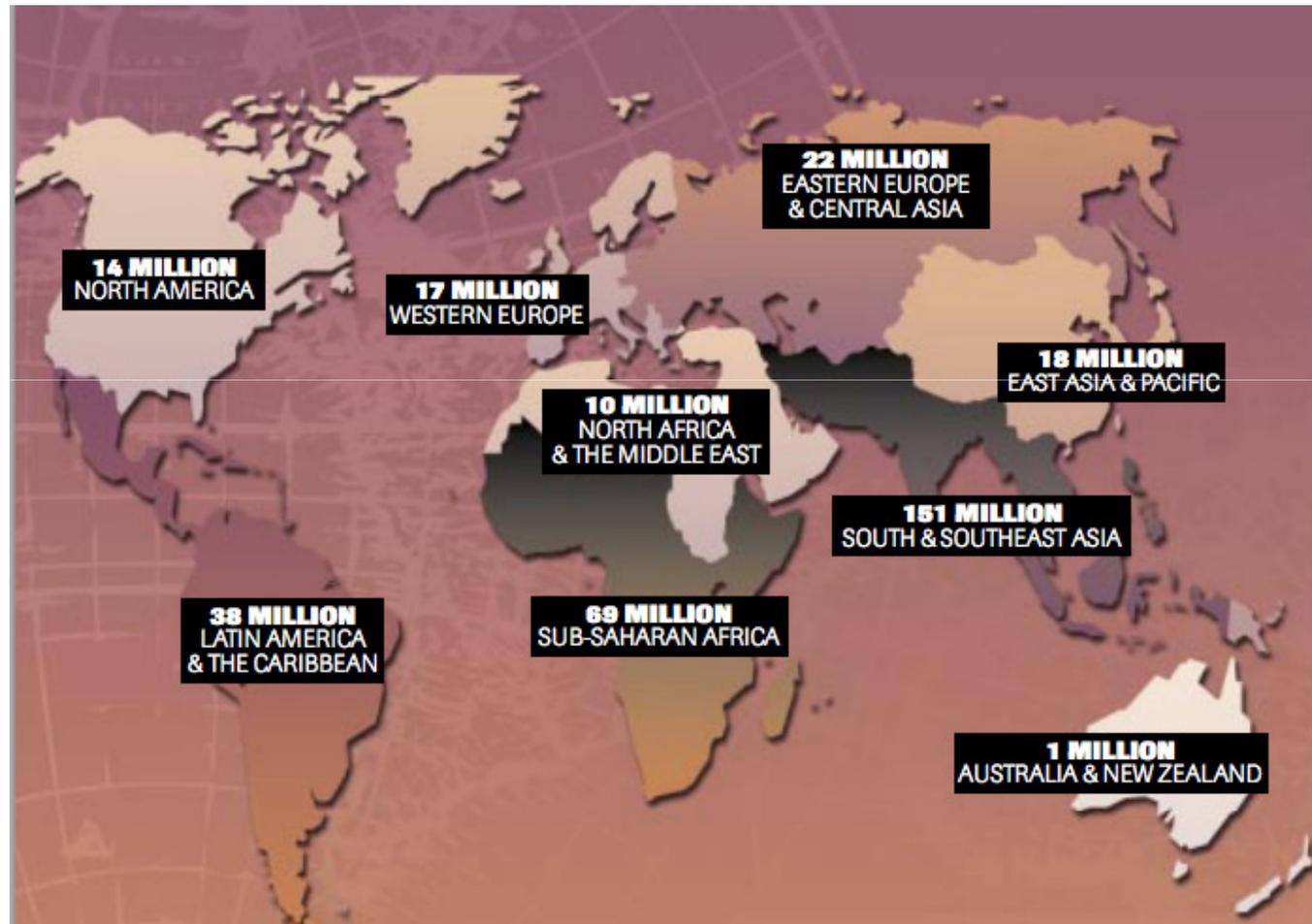
Epidemiology of Sexually Transmitted Infections in Arab Countries.

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2nd Congress of The Federation of Arab Societies of Clinical Microbiology and Infectious Diseases
Yasmine Hammamet , 24 to 26 May 2012.

GLOBAL ESTIMATES



Infection	Young Age	High-Risk Sexual Behavior	Low Socioeconomic Status	Poor Hygiene	Other Specific Risk Factors
Trichomonas		X	X	X	Increased age
Chlamydia	X	X			Female gender
Gonorrhea	X	X	X		
Syphilis	X	X			MSM population
Chancroid	X	X		X	Lack of male circumcision
Donovanosis	X	X	X		
Herpes simplex		X	X		
Human papillomavirus		X	X		Bimodal age distribution, lack of male circumcision
HIV/AIDS		X	X		MSM population (in the United States), perinatal infection, IV drug use
Hepatitis B		X			Lack of childhood vaccination, vertical transmission, IV drug use
Molluscum contagiosum	X	X			
Scabies/pubic lice		X	X	X	

Investing in Control and Prevention

- Reduces Mortality and Morbidity
- Reduces HIV
- Reduces serious complications
- Reduces Pregnancy adverse Outcomes

New vaccines against human papilloma virus infection could stop the untimely death of approximately 240 000 women from cervical cancer every year in resource-poor settings.



Epidemiologic Challenges

Considerable variation exist in the case definitions for the major acute STIs

- some countries requiring laboratory confirmed reports

- Others require clinical diagnoses or syndromes.

- Variations in STI screening, partner notification, and treatment practices also influence the degree to which asymptomatic patients and sexual contacts are diagnosed, treated, and recorded in surveillance statistics.

this heterogeneity is a severe limitation in our ability to compare disease rates across Arab states and in some instances, to monitor disease trends within countries.

Table 10.7 Gonorrhoea Prevalence in Different Population Groups

Country	Gonorrhoea prevalence
Djibouti	32.4% (promiscuous males; Fox et al. 1989)
Egypt, Arab Republic of	2.8% (family planning attendees; El-Sayed et al. 2002) 2.0% (ANC attendees; El-Sayed et al. 2002) 2.7% (IDUs; El-Sayed et al. 2002) 7.7% (FSWs; El-Sayed et al. 2002) 8.8% (MSM; El-Sayed et al. 2002)
Iran, Islamic Republic of	0.4% (a group of pregnant and nonpregnant women; Dezfulimanesh and Tehranian 2005) 1.0% (female prison inmates; Zangeneh 1999) 6.4% (obstetrics and gynecology clinics attendees; Chamani-Tabriz et al. 2007)
Jordan	0.7% (symptomatic hospital attendees; Jordan Ministry of Health 2004) 0.5% (asymptomatic hospital attendees; Jordan Ministry of Health 2004) 1.2% (symptomatic hospital attendees; As'ad 2004) 0.0% (asymptomatic hospital attendees; As'ad 2004) 0.6% (symptomatic hospital attendees; Mahafzah et al. 2008) 0.9% (asymptomatic hospital attendees; Mahafzah et al. 2008)
Kuwait	31.5% (STD clinic attendees; Al-Mutairi et al. 2007)
Lebanon	0.0% (rural population; Deeb et al. 2003)
Morocco	3.2% (family planning center attendees; Ryan et al. 1998) 5.4% (symptomatic primary health care center attendees; Ryan et al. 1998) 0.9% (ANC attendees; WHO/EMRO Regional Database on HIV/AIDS) 1.74% (female STD clinic attendees; Heikel et al. 1999) 0.8% (female STD clinic attendees; WHO/EMRO Regional Database on HIV/AIDS) 7.07% (male STD clinic attendees; Heikel et al. 1999) 10.0% (STD clinic attendees; Ryan et al. 1998) 42.0% (STD clinic attendees; WHO/EMRO Regional Database on HIV/AIDS) 52.4% (STD clinic attendees; Alami et al. 2002) 3.5% (FSWs; WHO/EMRO Regional Database on HIV/AIDS)

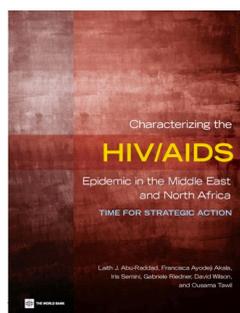
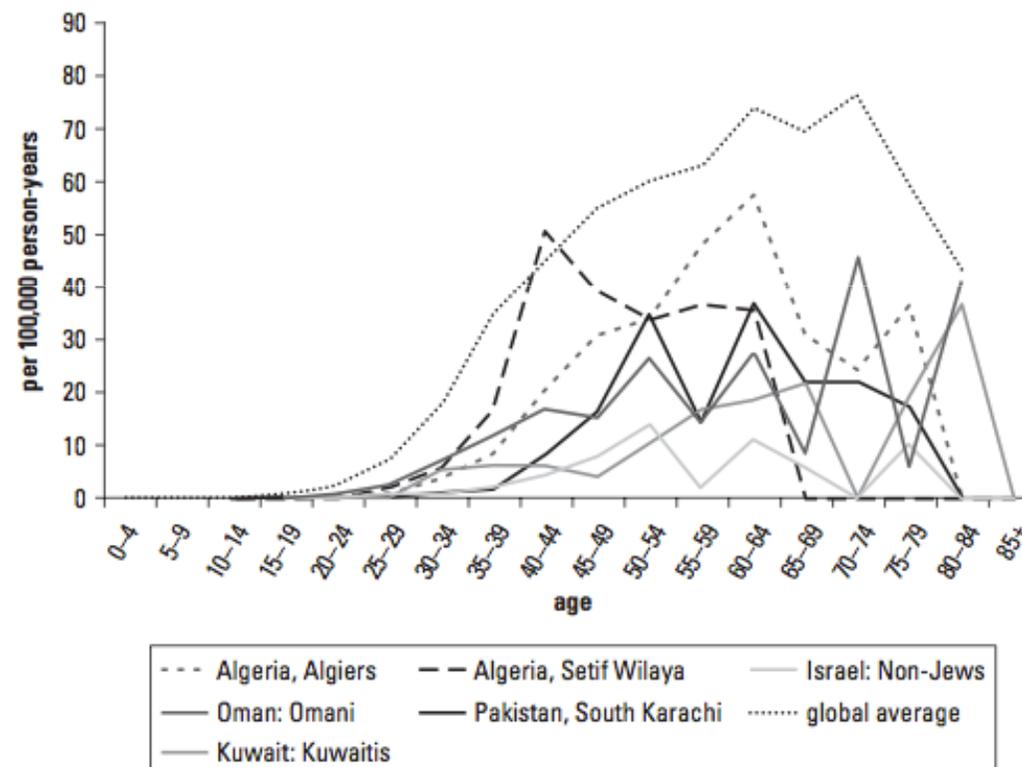
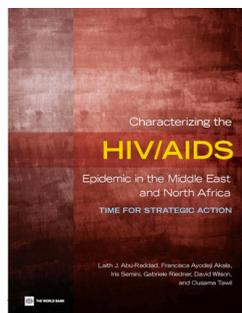


Figure 10.2 Age-Stratified Cervical Cancer Incidence in Select MENA Populations Compared to the Global Average



Source: Parkin et al. 2002.



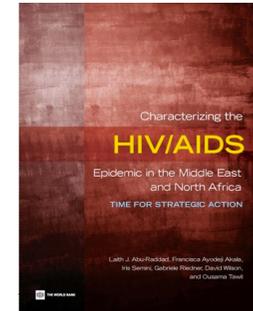
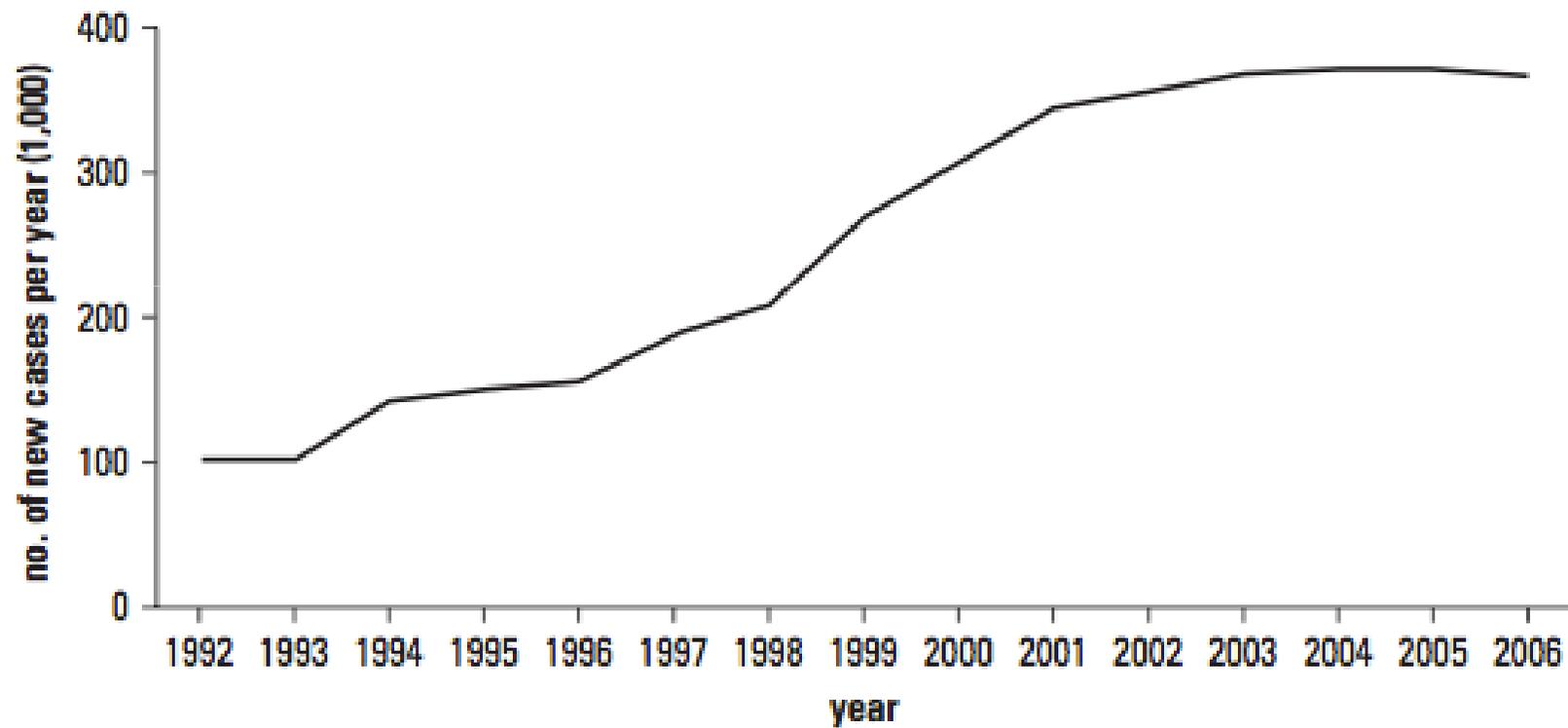


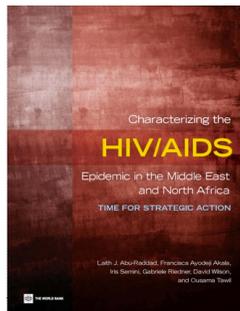
Figure 10.5 Trend in STI Notified Cases in Morocco, 1992–2006



Source: WHO/EMRO data reported to the WHO office of the Eastern Mediterranean Region.

Table 10.8 Chlamydia Prevalence in Different Population Groups

Country	Chlamydia prevalence
Algeria	100% (antichlamydia antibodies; obstetric clinic attendees; Kadi et al. 1989) 100% (antichlamydia antibodies; FSWs; Kadi et al. 1989)
Djibouti	5.7% (promiscuous males; Fox 1989)
Egypt, Arab Republic of	2.8% (family planning attendees; El-Sayed et al. 2002) 1.3% (ANC attendees; El-Sayed et al. 2002) 2.7% (IDUs; El-Sayed et al. 2002) 7.7% (FSWs; El-Sayed et al. 2002) 8.8% (MSM; El-Sayed et al. 2002)
Iran, Islamic Republic of	8.8% (male STI clinic attendees; Darougar et al. 1982) 9.3% (male patients with urethritis; Ghanaat et al. 2008) 6.9% (FSWs; Darougar et al. 1983)
Jordan	1.3% (symptomatic hospital attendees; Jordan Ministry of Health 2004) 0.5% (asymptomatic hospital attendees; Jordan Ministry of Health 2004) 0.8% (symptomatic hospital attendees; As'ad 2004) 0.0% (asymptomatic hospital attendees; As'ad 2004) 0.9% (symptomatic hospital attendees; Mahafzah et al. 2008) 2.2% (asymptomatic hospital attendees; Mahafzah et al. 2008) 3.9% (women attending infertility clinic; Al-Ramahi et al. 2008) 0.7% (hospital attendees; Al-Ramahi et al. 2008) 4.6% (symptomatic patients with urethritis; Awwad, Al-Amarat, and Shehabi 2003) 3.9% (symptomatic patients with urethritis; Al Ramahi et al. 2008)
Kuwait	4.1% (STD clinic attendees; Al-Mutairi et al. 2007)
Lebanon	0.0% (rural population; Deeb et al. 2003)
Morocco	2.6% (family planning center attendees; Ryan et al. 1998) 6.3% (symptomatic primary health care center attendees; Ryan et al. 1998) 4.2% (ANC attendees; WHO/EMRO Regional Database on HIV/AIDS) 5.6% (female STD clinic attendees; WHO/EMRO Regional Database on HIV/AIDS) 51.5% (STD clinic attendees; Heikel et al. 1991) 6.0% (STD clinic attendees; WHO/EMRO Regional Database on HIV/AIDS) 17.1% (STD clinic attendees; Alami et al. 2002) 5.0% (STD clinic attendees; Ryan et al. 1998) 19.1% (FSWs; WHO/EMRO Regional Database on HIV/AIDS)



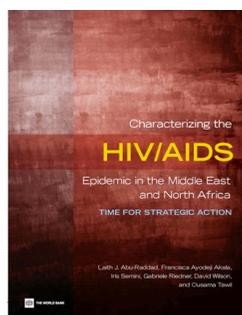


Table 10.3 Age-Standardized Rates of Cervical Cancer Incidence and Mortality (per 100,000 women per year)

Country/Region	Incidence ASR	Mortality ASR
Afghanistan	6.9	3.6
Algeria	15.6	12.7
Bahrain	8.5	4.8
Djibouti	42.7	34.6
Egypt, Arab Rep. of	9.7	7.9
Iraq	3.3	1.8
Iran, Islamic Republic of	4.4	2.4
Israel	4.6	2.3
Jordan	4.3	2.4
Kuwait	6.1	3.4
Lebanon	15.4	8.0
Libya	11.9	9.6
Morocco	13.2	10.7
Oman	6.9	3.9
Pakistan	6.5	3.6
Qatar	3.9	2.2
Saudi Arabia	4.6	2.5
Somalia	42.7	34.6
Sudan	15.4	12.7
Syrian Arab Republic	2.0	1.0
Tunisia	6.8	5.5
Turkey	4.5	2.4
United Arab Emirates	9.9	5.3
Yemen, Republic of	8.0	4.6

Source: Ferlay et al. 2004.

Note: ASR = age-standardized rates.

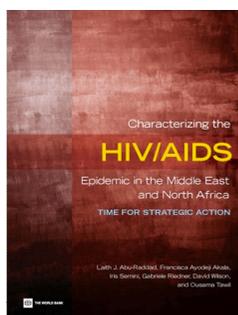


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Note: ASR = age-standardized rates.

Materials and Methods: A comprehensive retrospective review of the available epidemiological data (publications in the past 30 years until January 2011) on HPV and its related diseases (especially as they relate to the cervix) in the EMENA region was carried out.

Results: Analysis of the burden of HPV in the EMENA region highlights an unexpectedly high prevalence of HPV, with rates of HPV ranging from 0% to 25% in low-risk women with normal cytology and up to 98% in those with genital warts and preinvasive and invasive lesions.

Epidemiology of HIV infection in the Middle East and North Africa

Abu-Raddad, Laith J; Hilmi, Nahla; Mumtaz, Ghina; Benkirane, Manal; Akala, Francisca Ayodeji; Riedner, Gabriele; Tawil, Oussama; Wilson, David

AIDS. 24():S5-S23, July 2010.

doi:

10.1097/01.aids.0000386729.56683.33

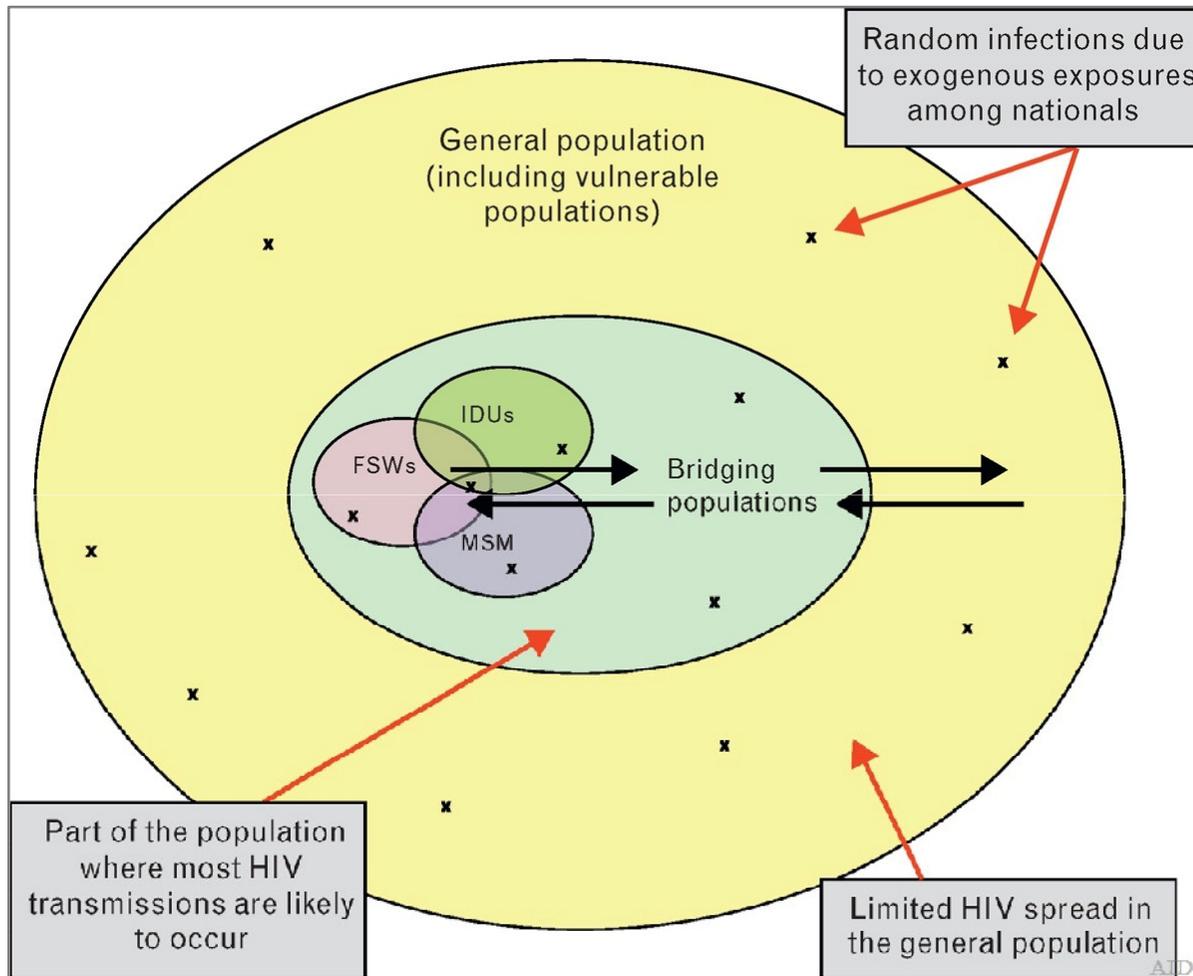


Fig. 1. Schematic analytical view of HIV epidemiology in Middle East and North Africa. IDU, injecting drug user; FSW, female sex worker; MSM, men who have sex with men.

The Arab Awakening



An STI Awakening?

- Influx of refugees
- Adverse socioeconomic determinants
- Re-emergence of political Islam
- Weaker Government

Influx of refugees



- 528,000 in total
- More than 85,000 Libyans moved to Tunisia
- Refugees coming from higher prevalence areas

Adverse Socioeconomic determinants

- Slow Economy
- Poverty
- High unemployment
- High mobility
- Demographic transition
- Increase age of marriage
- increased urbanization

Re-emergence of political Islam

- Promotion of patriarchal values
- Influence on local governance
- Higher pressure on MSM and FSW
- Stigma & Discrimination PLWHA
- Opposition to legal reforms
- Less condom use

Weaker Government

- Decrease in STI/HIV funding
- Increase in drug consumption
- Access to treatment & care
- Communication on STIs
- Law reinforcement
- Pre & In-service training

Suggested Solutions

Time for Strategic Action:

- **Stronger Monitoring and surveillance**
- **Focus STIs response where risks are and where STIs are already spreading or has the potential to spread**
- **Empower Civil Society**
- **Advocacy at all levels**



EMNOSTIC is a non-profit network of STI professionals in the Middle East and North Africa. We represent nearly all countries in the EMRO region and our members are also distributed across many other countries of the World.

We can be reached via our website www.emnostic.net and via the secretariat at

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**GLOBAL NETWORK OF RESEARCHERS ON HIV/AIDS
IN THE MIDDLE EAST AND NORTH AFRICA**