Key Policy Message
Policy efforts in the Middle East and North Africa (MENA) should focus HIV response where risks are and address as much as possible the factors contributing to vulnerability to risk behaviors.

Main Conclusions of the Scientific Findings
I) There is no evidence for a general population HIV epidemic in MENA. Most HIV transmissions in the general population are linked to transmissions originating in most at risk networks, that is injecting drug users (IDUs), men who have sex with men (MSM), and female sex workers (FSWs) and their clients.
II) Pockets of HIV transmission exist in the different MENA countries among most at risk populations, their spouses, and their other sexual partners. A significant number of HIV epidemics among these priority populations appear to have emerged within the last decade.
III) Most high-risk behaviors in MENA are practiced by men and the majority of women acquire their infection from their infected spouses.

Specific Findings
Injection drug users
• There are close to one million IDUs in MENA, accounting for 0.2% of the MENA population. This proportion is in the intermediate range compared to global figures.
• HIV prevalence among IDUs in MENA showed wide variability between settings. Overall, HIV prevalence ranged between 0 and 38% and reached rates as high as 52 and 72% in very select injecting population groups:
  • There is conclusive evidence for concentrated epidemics in at least Iran and Pakistan.
  • HIV incidence was found to be at very high levels of 16.8% per person-year among IDUs in a detention center in Iran.
  • High HIV rates among IDUs were also observed in several countries such as Bahrain, Libya and Oman.
• About half of IDUs in the region share non-sterile needles or syringes (range of 9-100%).
• The prevalence of hepatitis C virus, which is also transmitted through sharing of injections, is at intermediate to high levels (range of 11-91%), confirming intermediate to high levels of sharing of non-sterile injecting equipment.

Men who have sex with men
The fraction of men who ever had sex with men, at about 2-3% of the MENA population, appears to be consistent with global trends. Higher rates of male same-sex practices were found among select populations such as truck drivers and prisoners.

By 2008, male same-sex sexual contact was an important mode of transmission in several countries such as Egypt, Lebanon, Oman, Syria, and Tunisia.

HIV prevalence among MSM in MENA was at low to intermediate levels (range of 0-28%), with recently emerging epidemics among certain MSM groups in a few countries such as Egypt, Pakistan, and Sudan.

The average number of sexual partners among MSM varied between a low of 2 and a high of 42 sexual partners in the last year.

Generally high levels of male sex work were observed (range of 20-76%).

The rate of consistent condom use was low and ranged between 2 and 22%.

**Female sex workers**

- Practices of female sex work are complex and highly diverse across MENA.
- About 1 in 1,000 to 1 in 100 women exchange sex for money in MENA, a proportion lower than that observed in other regions.

HIV prevalence among FSWs in MENA ranged between 0 and 70%:
  - Generally HIV prevalence among FSWs is at low levels in most countries, though at levels higher than in the general population.
  - In contrast to the overall trend observed in MENA, there was evidence for concentrated epidemics in Djibouti, Somalia and Southern Sudan.
  - There were varying levels of evidence for low intensity HIV epidemics among FSWs in a few countries such as Morocco.

Levels of sexual risk behavior among FSWs in MENA were at low to high levels, but generally tended to be lower than in other regions.

There were considerable levels of other sexually transmitted infections among FSWs in MENA.

**Bridging populations**

- Generally in MENA, low HIV prevalence was found among bridging populations such as truck drivers, fishermen, sailors, military personnel, and migrant workers (range of 0-3%).
- Still, there was evidence of considerable sexual risk behavior such as sexual contacts with FSWs among these population groups in MENA.

**General population**
• Apart from Djibouti, Somalia, and Southern Sudan, HIV prevalence among the general population of MENA is very low, generally close to 0%, and among the lowest rates of all regions.
• Levels of sexual risk behavior among the general population of MENA are generally on the low side.

Definitions

**MENA**: Middle East and North Africa

**Prevalence of HIV**: fraction of a population that are infected by HIV

**Concentrated epidemic**: HIV prevalence consistently exceeding 5% in a most at risk group

**Low intensity epidemic**: HIV prevalence much higher than that in the general population but still lower than the 5% threshold defining a concentrated epidemic

---

**For more information on the findings of the scientific study please contact:**

Laith Abu-Raddad, PhD  
Director of Epidemiology, Biostatistics and Biomathematics Research Core  
Infectious disease Epidemiology Group  
Assistant Professor in Public Health  
Weill Cornell Medical College - Qatar  
Cornell University  
Qatar Foundation - Education City  
Doha, Qatar  
Office: +(974) 492-8321  
Mobile: +(974) 649-8276  
USA based number: +(1) 425-321-5245  
Fax: +(974) 492-8333  
E-mail: lja2002@qatar-med.cornell.edu  
URL: [http://dev.qatar-med.cornell.edu/research/faculty/abuRaddad/InfectiousDiseaseEpidemiologyGroup.html](http://dev.qatar-med.cornell.edu/research/faculty/abuRaddad/InfectiousDiseaseEpidemiologyGroup.html)

The MENA HIV Synthesis Book in PDF e-book format can be found at:  
[http://www.worldbank.icebox.ingenta.com/content/wb/bk18137](http://www.worldbank.icebox.ingenta.com/content/wb/bk18137)

The book widget is available at:  

The book can be purchased from:  
Amazon: [http://www.amazon.com/Characterizing-Epidemic-Middle-North-Africa/dp/0821381377/ref=sr_1_1?ie=UTF8&s=books&qid=1277060767&sr=8-1](http://www.amazon.com/Characterizing-Epidemic-Middle-North-Africa/dp/0821381377/ref=sr_1_1?ie=UTF8&s=books&qid=1277060767&sr=8-1)