TRANSLATING HIV SCIENCE INTO PRACTICE IN THE MENA REGION

SCIENTIFIC SYMPOSIUM

Lebanon, 29 June 2019
Current HIV trends and epidemiology - Day 2

The Emerging HIV Epidemics in the Middle East and North Africa

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What is the status of the HIV epidemic in the Middle East and North Africa (MENA)?
Overall picture:
A trend of emerging epidemics

- A trend of emerging HIV epidemics among the key populations at risk including PWID, MSM, and FSWs

People who inject drugs & HIV
Heroin trade
People who inject drugs & HIV

- Fraction of the population in MENA who inject drugs:
  - There are nearly one million PWID in MENA
  - Population fraction: 0.2% (0.05-0.4%)
  - Intermediate range compared to other regions

<table>
<thead>
<tr>
<th>Country</th>
<th>IDU estimates (1,000s)</th>
<th>IDU prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afghanistan</td>
<td>7</td>
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<tr>
<td>Algeria</td>
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<td>Egypt</td>
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<td>Iran</td>
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<td>Iraq</td>
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<td>Lebanon</td>
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<tr>
<td>UAE</td>
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<tr>
<td>Yemen</td>
<td>20</td>
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</tr>
</tbody>
</table>

Middle East and North Africa

Emerging HIV epidemics among people who inject drugs

- At least one-third of MENA countries are affected by emerging HIV epidemics among PWID
- Epidemic had its major expansion just after 2000

Rising HIV epidemics among PWID

Men who have sex with men & HIV
Men who have sex with men & HIV

- Fraction of males who have sex with males in MENA:
  - Overall range: 2-3% of males
  - Comparable to international levels but from the low side

Mumtaz et al., PLoS Med (2011)
Emerging HIV epidemics in key populations

- At least half of MENA countries are affected by emerging HIV epidemics among MSM
- Epidemic had its major expansion also just after 2000 (~2003)

Mumtaz et al., PLoS Med (2011)
Rising HIV epidemics among MSM

Tunisia

HIV prevalence (%)

Time (year)

2009
4.9

2011
10.1

Tunisia Ministry of Public Health, *Biobehavioral survey among MSM in Tunisia: Round I (2009), and Round II (2011)*
Female sex workers & HIV
HIV epidemiology among female sex workers (FSWs) and their clients/male STI clinic attendees in MENA
First comprehensive assessment of HIV epidemiology among FSWs in MENA

Study identified a volume of data, a large fraction of which unpublished

- >300 size estimation studies
- >500 HIV prevalence studies (300,000 FSWs, 30,000 clients).

Breadth of evidence allowed in-depth analyses, including quantitative assessments of geographic and temporal trends.

Chemaitelly et al., BMC Med (2019)
Population proportion/size estimation

- Population proportion of current/recent sex work
  - Median: 0.6%, range: 0.2-2.4%.

- Population proportion of current/recent clients of FSWs
  - Median: 5.7%, range: 0.3-13.8%.

Chemaitelly et al., BMC Med (2019)
Emerging HIV epidemics among FSWs post-2003

HIV prevalence is growing by about 15% per year since 2003

Adjusted odds ratio: 1.15 (95% CI: 1.09-1.21)

Chemaitelly et al., BMC Med (2019)
HIV prevalence among FSWs

Chemaitelly et al., BMC Med (2019)
Sexual and injecting risk behaviors among FSWs

• Number of clients in past month
  – Median: 34 clients, range: 4-114 clients.

• ~50% reported condom use at last sex.

• Highest levels of injecting drug use in Eastern MENA
  – Current/recent injecting drug use
    Median: 2.1%, range: 0-26.6% (most studies from Pakistan).
  – History of injecting drug use
    Median: 13.6%, range: 6.1-18.0% (most studies from Iran).

HIV testing among FSWs

• HIV testing far below the 90% service coverage target of ‘UNAIDS 2016-2021 Strategy’
  – 17.6% ever tested for HIV.
  – 12.1% tested in past 12 months.

Key observations on these epidemics
Overlap of risk behaviors among high-risk populations

Considerable overlap of risks in MENA among PWID, MSM, and FSWs

Mumtaz et al., Curr Opin HIV AIDS (2014)
HIV epidemics and their overlap

Pakistan

HIV prevalence (%)

Time (year)

- 2005: 10.8 (PWID), 0.8 (MSW), 0.2 (FSWs)
- 2006: 15.8 (PWID), 1.8 (MSW), 0.02 (FSWs)
- 2008: 20.8 (PWID), 6.4 (MSW), 2.3 (FSWs)
- 2011: 37.8 (PWID), 7.2 (MSW), 0.8 (FSWs)
- 2016: 38.4 (PWID), 7.5 (MSW), 2.2 (FSWs)

www.iasociety.org
People who inject drugs (PWID): The HIV epidemic among PWID is concentrated in the northern part of the country, specifically in Nador with an HIV prevalence of 25.1%. Very limited HIV prevalence has been found in the rest of the country.

Female sex workers (FSWs): FSWs are the most affected group by the epidemic, but the HIV epidemic is focused mainly in the southern part of Morocco with an HIV prevalence of just above 5%.

Men who have sex with men (MSM): The HIV epidemic among MSM appears to be focused also in the southern part of Morocco with an HIV prevalence of 5.6% in Agadir.

Mumtaz et al., *Sex Transm Infect* (2013)
Apparent regionalization of epidemics

Mumtaz et al., Curr Opin HIV AIDS (2014)
Conclusions

- Established but largely emerging HIV epidemics among PWID, MSM, and FSWs

- Increasing HIV trends + epidemic potential

- Urgency for prevention. Need to:
  - Expand HIV surveillance
  - Expand access to HIV testing, prevention, and treatment services
Thank you

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MENA HIV/AIDS Synthesis Project

• The Project: The Middle East and North Africa HIV/AIDS Epidemiology Synthesis Project

• Largest HIV/STI study in MENA to date

• Funded by:
  – Phase I: World Bank/UNAIDS/WHO
  – Phase II and III: Qatar National Research Fund