Epidemiology, coverage and target setting for PrEP programme scale up

2nd regional consultation on PrEP implementation
16 January 2018

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New HIV infections in Asia and the Pacific – lagging behind the global trend

**Global**

- **New HIV infections**
  - 1,500,000
  - 3,000,000
  - 4,500,000

- **Fast-Track Target 2020:**
  - 500,000 new HIV infections

- **16% decline** between 2010 and 2016

**Asia and the Pacific**

- **New HIV infections**
  - 270,000

- **Fast-Track Target 2020:**
  - 90,000 new HIV infections

- **13% decline** between 2010 and 2016

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*The 2020 target is equivalent to a 75% reduction since 2010.

Source: Prepared by [www.aidsdatahub.org](http://www.aidsdatahub.org) based on UNAIDS 2017 HIV Estimates
Distribution and trends in new HIV infections in Asia and the Pacific countries

Percent change in new HIV infections between 2010 and 2016

- China: -22%
- Indonesia: -21%
- Pakistan: -26%
- Thailand: -50%
- Vietnam: -34%
- India: 39%
- Philippines: 141%

Distribution of new HIV infections by country, 2016

- India (80,000, 30%)
- Indonesia (48,000, 18%)
- Pakistan (19,000, 7%)
- Viet Nam (11,000, 4%)
- Myanmar (11,000, 4%)
- Thailand (6,400, 2%)
- Philippines (10,000, 4%)
- Others (9%)

Source: Prepared by www.aidsdatahub.org based on UNAIDS 2017 HIV Estimates
Key populations are important in all epidemic settings

DISTRIBUTION OF NEW HIV INFECTIONS, BY POPULATION, GLOBAL, SUB-SAHARAN AFRICA AND COUNTRIES OUTSIDE OF SUB-SAHARAN AFRICA, 2015


*Only reflects Asia and the Pacific, Latin America and Caribbean regions.
Expanding share of new HIV infections among men who have sex with men-AP region

Share of new HIV infections by population, 2000-2016

Based on data from 11 countries: Bangladesh, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Thailand, Viet Nam

Services for key populations are decreasing

Number of PWID monthly reached with needle exchange program, China

Number of FSW monthly reached by prevention interventions, China

Number of MSM monthly reached by prevention interventions, China

Oral PrEP containing TDF should be offered as an additional prevention choice for people at substantial risk of HIV infection as part of combination HIV prevention approaches.
PrEP access global
January 2018
PrEP availability through pilot/demonstration sites by key populations

PrEP availability
- MSM
- MSM, SW and PWID
- MSM, SW, TG
- MSM, SW, TG, PWID
- Serodiscordant couples
- No
- No info

Prepared by [www.aidsdatahub.org](http://www.aidsdatahub.org)
## Estimates of PrEP uptake in Asia Pacific
November 2017

Many reports have wide confidence intervals – presented here to reflect the relative size of PrEP programmes

<table>
<thead>
<tr>
<th>Country</th>
<th>Estimated number started PrEP</th>
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<tr>
<td>Australia</td>
<td>11,500</td>
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<td>People’s Republic of China</td>
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<tr>
<td>Thailand</td>
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</tr>
<tr>
<td>Vietnam</td>
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</tbody>
</table>
2020 HIV Prevention Targets & Commitments
(2016 UN Political Declaration on Ending AIDS)

Impact
- <500,000 new infections (75% reduction against 2010 baseline).

Programme coverage-access to combination prevention
- 90% of adolescent girls, young and adult women & men in high-prevalence settings
- 90% of key populations

Outputs
- 20 billion condoms per year (equal to 25-50 condoms per male in high-prevalence countries)
- 3 million people on pre-exposure prophylaxis (10% of persons at risk).
- 25 (additional) million voluntary medical male circumcisions in 14 countries in Africa (90% coverage among 15-29 year olds).

Financing and sustainability
- Allocate one “quarter” of total HIV budget for prevention on average, e.g. 15-30% (depending on relative treatment burden).
- Ensure that at least 30% of service delivery is community led by 2030
The cost-saving origin of the 3% threshold for offering PrEP

- An attempt to put a figure to concept of ‘substantial risk’.
- Incidence level at which the cost for PrEP is less than the costs for ART to treat the averted infection. Varies with effectiveness (adherence) and relative cost of ART vs. PrEP
- Looking only at cost saving. Most useful for modeling and target setting; less relevant to clinical services
Combination prevention: five pillars

1. Combination prevention for adolescent girls and young women
2. Combination prevention with key populations
3. Comprehensive condom programmes
4. Voluntary medical male circumcision and sexual and reproductive health services for men and boys
5. Rapid introduction of pre-exposure prophylaxis

What is delaying PrEP roll out?

• Policy environment- Political and Programme advocacy required
• Cost effectiveness and budget
• Regulatory evaluation and approvals
• Possibility of decreased condom use, increased STIs
• Access to convenient and stigma-free PrEP services (will be addressed later in the agenda)
Cost-effectiveness and budget

• Cost-effectiveness is highly sensitive to:
  - incidence in the population receiving PrEP
  - level of adherence (effectiveness) achieved
  - effectiveness of other (cheaper) components of combination HIV prevention
  - cost of medicine (including whether daily or on-demand PrEP for MSM, generic version).

• Budget – PrEP can have high up front costs including capacity building and raising demand. Drug costs are unnecessarily high. Hence vital to make a strong investment case and prepare an attractive PrEP service.
Regulatory evaluations and approvals

Ensuring a quality assured and affordable supply of PrEP medicines depends on:

- *Domestic manufacture* (Thailand, India, potentially China)
- *TRIPS flexibility* (Australia – research exception applied), (Indonesia – previously issued a compulsory licence)
- Using *voluntary licence* via the MPP. In Asia Pacific most countries can use this route but not used inspite of waiver of data exclusivity
- Regulatory approval for tenofovir containing products for PrEP is required as it is being used for prevention- impediment for most countries, as time consuming- currently only 50 countries approved
- Consider *other formulations* eg TDF/3TC and off label use as interim measure
Address concerns about decreased condom use, increased STIs

• PrEP users include those who are already not using condoms consistently and having history of STIs
• PrEP programmes should promote sexual health and well-being and the understanding of related choices including the role of condoms
• Trials found no evidence of significant drop in condom use; programme reports are mixed
• Increased STI testing in PrEP programmes leads to more STIs diagnosed and treated.
With quality STI services, anticipate early spike in diagnoses; number of STIs expected to eventually decrease

AIDS. 31(12):1709–1714, JUL 2017 .... Australian pre-exposure prophylaxis users Melbourne, Luxi Lal et al.

**Conclusion:** We found a significant reduction in condom use and an increase in STIs over the first 12 months of follow-up. High medication adherence rates occurring with a decline in condom use and a rise in STIs, suggest that prevention, early detection and treatment of STIs is a chief research priority in the current era of HIV PrEP.

Study Suggests STI Testing and Treatment as Part of PrEP Care May Reduce Bacterial STIs among Gay and Bisexual Men

*Poster presentation: STI incidence among MSM following HIV pre-exposure prophylaxis: a modeling study* Jenness et al., February 15, 2017

McCormack S et al., Gonorrhoea tests and diagnoses in HIV negative MSM 2012 – 2016 Dean Street Clinic, London.

**Note chlamydia results unchanged**
Setting national PrEP targets

• Set them as part of national prevention targets—many countries do not have prevention targets.

• Targets give guidance to national health systems about:
  – how many people are at ‘substantial risk’ and likely to need PrEP
  – how many new infections would be prevented
  – what it would cost

• Global Target: 3 million protected by PrEP in 2020. Assumption that 3 million represents 10% of those at high risk (> 3% incidence).

• These include: higher-risk MSM in many countries, sex workers in sub-Saharan Africa, sero-discordant couples and AGYW in hyper endemic countries.

• National targets need to be set separately by population group and subgroups, as heterogeneity exist between and within countries.
Setting national PrEP targets continued

- Each country requires the most localised but robust incidence and population size estimates possible. Complement this with local risk behaviour knowledge and surveys.

- Current uptake among at-risk MSM higher than among sex workers - Uptake among sex workers in South Africa offered PrEP was only about 5%, self-selected as at high risk

- Low numbers enrolled due to low demand/uptake, but also important access issues

- Supplement “no. on PrEP” target with target for “no. of sites offering PrEP”, as appropriate

- Significant programmatic implications, including need for testing, adherence clubs, PrEP peer groups etc.
Sub-national target-setting

• Ideally, all priority provinces, districts and cities should establish their own targets for the reduction in new infections and prevention program pillars, as appropriate

• **Local programs** can set targets and monitor progress on:
  – Number/proportion of key populations reached at least once in last 1 or 3 months
  – Number of condoms (per male) distributed/sold
  – Commodity stock outs
  – Number of persons on PrEP
  – Adherence

• **Local level surveys** can establish:
  – Estimated number of new infections
  – Knowledge
  – Condom use
  – Etc.

• Additional policy targets
Conclusions

• HIV incidence remains high in specific geographic locations and among specific populations—need for additional prevention choices

• PrEP is effective and feasible with growing implementation experience- enough evidence for scaled up implementation for epidemic impact.

• PrEP programmes can catalyze HIV testing, treatment and link people to various other services

• Large scale roll out requires partnerships that address structural, behavioral political and programmatic issues. Existing mechanisms for access underutilised
Way forward

• Learning from demonstration/pilot projects consolidated for national scale up

• PrEP targets need to be built from bottom up. Different approaches possible
  – Dedicated prevention target -setting process
  – together with treatment target revision or stand-alone
  – Fill gaps, e.g. in condom, PREP or key population targets
  – National + sub-national targets

• Resource mobilisation as part of combination prevention. Political commitment needed, not just a technical exercise!

• Partnerships key- Building a larger coalition in the region important - Follow up meeting for demand creation and programme preparedness with communities, technical and funding partners, national programmes being planned.