#ADHERENCE2016

Ending AIDS as a Public Health Threat: The Power of Change

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IAFAC
International Association of Providers of AIDS Care

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Postgraduate Institute for Medicine
PARADIGM SHIFT(ING): WHEN TREATMENT IS PREVENTION, WHAT THEN DO WE MEAN BY PREVENTION?

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Conflict of Interest Disclosure

I have no real or apparent conflicts of interest to report.
About Treatment Action Group

- Treatment Action Group is an independent research and policy think tank focused on activism to accelerate research, treatment, access, and community information to prevent, treat, and cure HIV and its most common coinfections, hepatitis C virus (HCV) and tuberculosis (TB).

[www.treatmentactiongroup.org](http://www.treatmentactiongroup.org)
The fundamental concept of “HIV prevention” has changed radically in the past decade.

• First CDC PEP guidelines for non-occupational exposure in 2005
• Advent of PrEP
• HPTN 052 and TasP
• The Gardner Cascade/Care and Treatment Continuum
• Affordable Care Act
• Renewed urgency for SAPs and options for people who inject

Image source: www.aidsmap.com
A National TasP-Centric Prevention Response

- Calls for “test and treat” approaches in U.S.
- High Impact Prevention
- Questions about the future of “prevention for negatives”

Figure 2
U.S. Federal Funding for HIV/AIDS, by Category, FY 2016 Request

US$ Billions

- Domestic Care & Treatment: $18.5 Billion (58%)
- Global: $6.3 Billion (20%)
- Domestic Cash & Housing Assistance: $3.1 Billion (10%)
- Domestic Research: $2.8 Billion (9%)
- Domestic Prevention: $0.9 Billion (3%)

Total: $31.7 Billion

NOTE: Categories may include funding across multiple agencies/programs; global category includes international HIV research at NIH.
But there are substantive arguments against a singular TasP approach

• The notion that TasP alone can end an HIV epidemic, particularly among MSM, is controversial both within existing modeling and real world examples. (Kretzschmar 2013; Powers 2014; Cohen 2012; Phillips 2014)

• Ethical Considerations

We will have to maintain and expand options for those most vulnerable to HIV infection.

Equitable access to all the tools in our toolbox (PrEP, PEP, Clean Injection Supplies, STI screening)

Pursuing hopeful new tools in the pipeline (injectables, microbicides, other PrEPs, vaccines, and cures)

Maximize impact of the ACA

Medicaid expansion

Image courtesy of The Stigma Project
Complex questions will have to be answered for different contexts and different populations

- Not all interventions are created equal
- The effectiveness of the same innovation in different locations will change
- Each key population has special considerations

Recommendations

1. **Strengthen surveillance** to document HIV incidence, impact of prevention interventions and services, and progress toward reduced new infections and other health outcomes among all vulnerable populations.

2. Identify and support research priorities to **better define evidence-based prevention practices** and **implementation science**

3. Form a federal **Comprehensive HIV Prevention Service Delivery Initiative**, similar to the **HIV Care Continuum Initiative**, to identify and coordinate cross-agency responsibilities to address critical structural, social, and behavioral determinants of health and HIV risk reduction in key vulnerable populations.
4. Develop, disseminate, and support **best HIV prevention practices** to facilitate comprehensive, culturally competent, streamlined, age-appropriate, and rapid uptake among non-HIV care and other service providers.

5. Develop **continua, process models, or similar heuristics** to guide comprehensive HIV prevention service delivery research and implementation.
HIV Care Continuum

- Simplifies a complex & dynamic process
- Generally measurable, outcomes oriented
  - All pillars should apply to 100% of PLWHIV
- Captures collective attention
  - Highly visual, accessible, and reproducible
  - Works across stakeholder populations
  - Has galvanized advocacy, funding, and implementation of sound research, policies, and best practices
Time for a Prevention Continuum?

- Enter care continuum
- Insurance and provider linkage a priority
- Coordination of best practices and service delivery
- Strong framework for existing and emerging interventions/services
Time for a Prevention Continuum?

• Missed opportunities
  – Insurance navigation & enrollment
  – Risk assessments for HIV and other health disparities
  – Linkage to HIV-inclusive integrative/comprehensive care
  – Coordination of structural, behavioral and biomedical interventions
Intervention-Based Cascade

1. At risk for HIV infection
2. Identified as PrEP candidate
3. Interested in PrEP
4. Linked to PrEP program
5. Initiated PrEP
6. Retained in PrEP Program
7. Achieve adherence and persistence

Population-Based Cascade

The “HIV Neutral” Continuum of Care

<table>
<thead>
<tr>
<th>HIV-negative</th>
<th>HIV-positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV CARE AND PREVENTION ARE THE SAME = GETTING TO HIV NEUTRAL</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% persons at epidemiologic risk</th>
<th>On PrEP</th>
<th>Discussed PrEP with Doctor</th>
<th>Sexual history taken</th>
<th>Linked to clinical prevention</th>
<th>At epidemiologic risk</th>
<th>Estimated HIV-infected</th>
<th>Ever linked to HIV care</th>
<th>Retained in HIV care</th>
<th>Presumed ever started on...</th>
<th>Suppressed viral load</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>
Infection cascade and prevention pathways model

**Eliminate Virus in community** High uptake of testing; high/complete levels of durable viral suppression; CVL, test, link, treat, retain

**Eliminate Proximal Virus** Know partner status; couples testing; 4th generation tests; Durable viral suppression in HIV positive partner(s); Status discussions

**Prevent Viral Entry** Barrier method(s)- male condom/female condom; choice of alternatives to penetrative sex; sexual positioning; treatment of STIs; minimize abrasive (dry) penetration

**Prevent Establishment of Viral Infection** PEP, PrEP

**Circulating Virus**

**Viral Presence**

**Viral Entry**

Depression  
Housing  
Hunger  
Violence  
Caring relationships  
Safety  
Intimate Partner Violence  
Discrimination  
Employment  
Access to education  
Substance use  
Poverty  
Gender dynamics  
Trauma  
Stigma  

# “Double Helix” Comprehensive HIV Prevention Process Model

## HIV-Positive

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linkage to HIV-inclusive primary care</td>
<td>Linkage case management, ACA navigation, red-carpet entry programs</td>
</tr>
<tr>
<td>Screen for risk factors and barriers</td>
<td>Screen for STIs, mental health issues, drug use, domestic violence, trauma</td>
</tr>
<tr>
<td>Retention in care and services</td>
<td>Case management and linkage to housing and other ancillary services</td>
</tr>
</tbody>
</table>

## HIV-Negative

<table>
<thead>
<tr>
<th>Stage</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linkage to primary care</td>
<td>HIV risk screenings, linkage case management for high-risk individuals, ACA navigation</td>
</tr>
<tr>
<td>Screen for risk factors and barriers</td>
<td>Screen for STIs, mental health issues, drug use, domestic violence, trauma</td>
</tr>
<tr>
<td>Retention in care and services</td>
<td>Case management and linkage to housing and other ancillary services</td>
</tr>
<tr>
<td>Continued risk reduction, PrEP, PEP</td>
<td>+ Regular HIV testing and reevaluation of risk factors; adherence support</td>
</tr>
<tr>
<td>Remain HIV-negative</td>
<td>+ Adherence support</td>
</tr>
</tbody>
</table>

### HIV-Positive Stage
- Outreach and reengagement
- HIV literacy and education
- Peer support/navigation
- Mental health and drug-use counseling

### HIV-Negative Stage
- Assess attitudes, beliefs, behaviors, education, and problem-solving skills
**Strengths**

- Accessible, relatable
- Linkage to insurance and care a priority
- Not HIV specific
- Robust HIV-inclusive risk screening and primary/preventive/whole health care
- Demands coordination of interventions and services (including PrEP)
Weaknesses

- Prevention isn’t linear, but rather cyclical
- Focuses too heavily on medical model
- Providers largely unprepared
- Primary care not a priority for some populations
- Insurance coverage still fractured
- ASOs/CBOs critical to prevention work
TAG/amfAR HIV Prevention Continuum

- Conceptual model
  - HIV testing is focal point
  - Identifies relevant:
    - Elements
    - Metrics
    - Potential data sources for points along the process
  - Links primary prevention with secondary prevention

Let’s start by being idealists

- What should prevention look like from start to finish for different individuals?
- How would we, in an ideal world, extrapolate this to population-level strategies?
- Then, how do we take those ideal plans and implement them in the real world?
THANK YOU!

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