

HIV SCREENING & TREATMENT IN ROUTINE CLINICAL CARE: ¹

Update Commemorating World AIDS Day
December 1, 2017

- Co-sponsors: LLU SOM, Departments of Preventive Medicine and Family Medicine and Beyond AIDS Foundation
- **Slides to be posted at**
www.beyondaids.org/resources.html
- Further information: www.beyondaids.org
 - Joining, Donating: <http://beyondaids.org/membershipform.html>
 - Internship/Fellowship Program:
<http://beyondaids.org/applications/BAInternship.pdf>

HIV Treatment as Prevention and the HIV Care Continuum

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December 1, 2017

(Commemorating World AIDS Day)

Planned posting of this presentation:

<http://www.beyondaids.org/resources.html>



Status of the HIV Epidemic

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■ PREVALENCE

- US: 1.1 million (CDC estimate, 2014); 85% aware of status
- GLOBAL: 36.7 million (of >70 million ever infected; UNAIDS estimates, 19.5 million being treated (53%), end of 2016; 60% aware of status)

■ INCIDENCE

- US: 39,500 diagnoses (CDC, 2015; trend is decline except for gay males)
- GLOBAL: 2.1 million (estimate, 2015; ?1.8 m 2017, trend is decline)

■ ANNUAL DEATHS

- US: 6,700 (CDC ESTIMATE, 2014)
- GLOBAL: 1,000,000 (WHO estimate, 2016)

The AIDS Quilts

In 1987, the NAMES Project Foundation began a tradition of honoring persons who died of AIDS with hand-made quilts about their lives. Thousands of quilts are shown on display in 1992 in Washington, DC.

In 2004, sections of quilts were displayed at Loma Linda University for a World AIDS Day program. World AIDS Day has been observed annually globally since 1988; red ribbon is symbol.



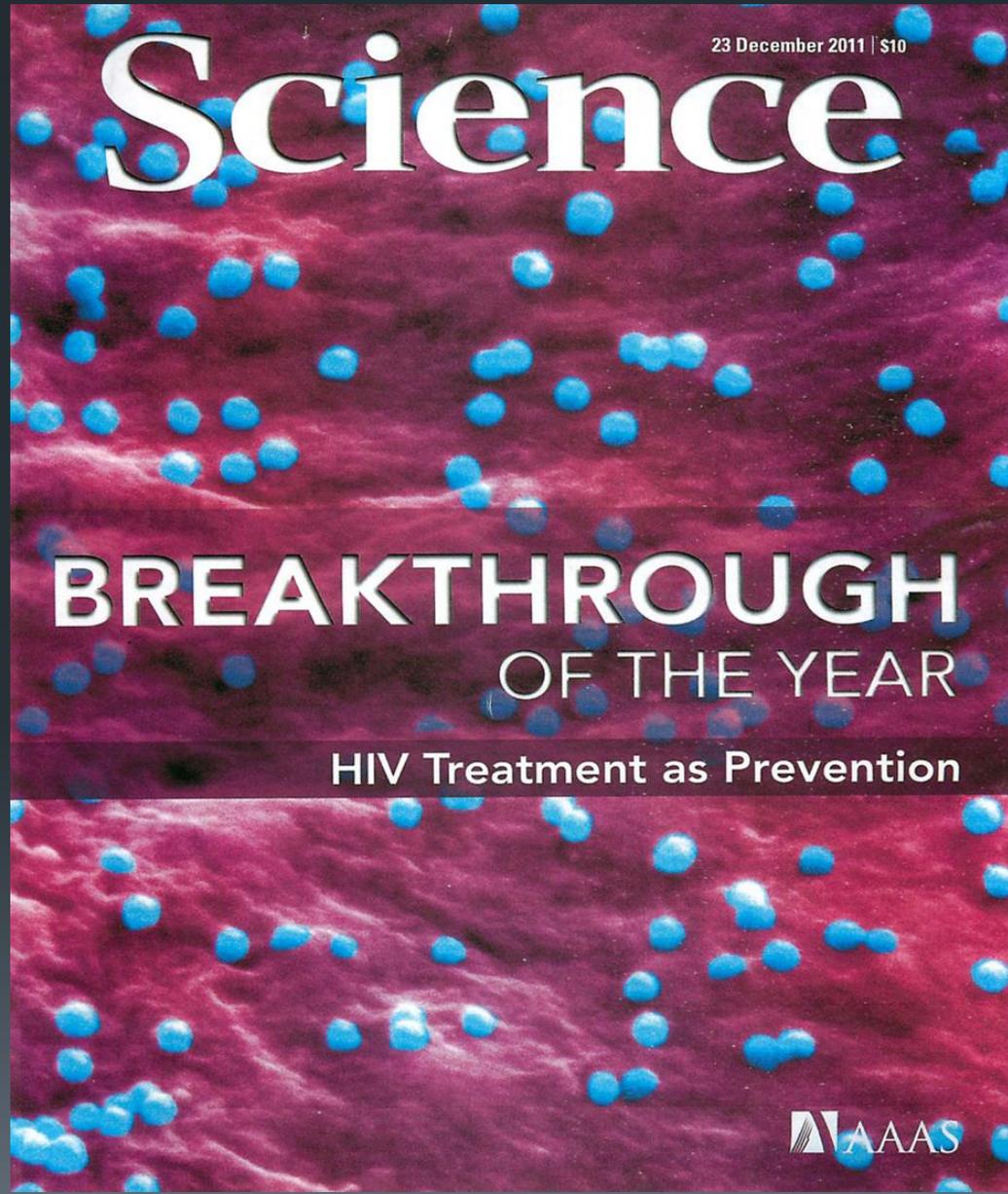
The Concept of Treatment as Prevention; Applying It to HIV

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- Treating the infected person to reduce infectiousness is the mainstay of treatment for TB, syphilis, other diseases
 - Killing organism logically results in less shedding, less exposure of others
 - Requires prompt onset of treatment
- Applying this to HIV had been proposed in 1996 by Hattis and Jason at the Loma Linda University Preventive Medicine residency (endorsed by CMA but went nowhere)
 - <http://www.beyondaids.org/articles/1996MA~1.PDF>
 - <http://www.beyondaids.org/articles/WillNewMedicationsReduceInfectiousnessofHIV-1997.pdf>
 - But from 2001-2011 that was contrary to treatment guidelines to delay till low CD4 cell count
- Research published 2011 confirmed that HIV medications can make HIV almost non-infectious (studies to be shown in early treatment presentation)

Science Magazine, Dec. 2011

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Antiretroviral prophylaxis: a defining moment in HIV control

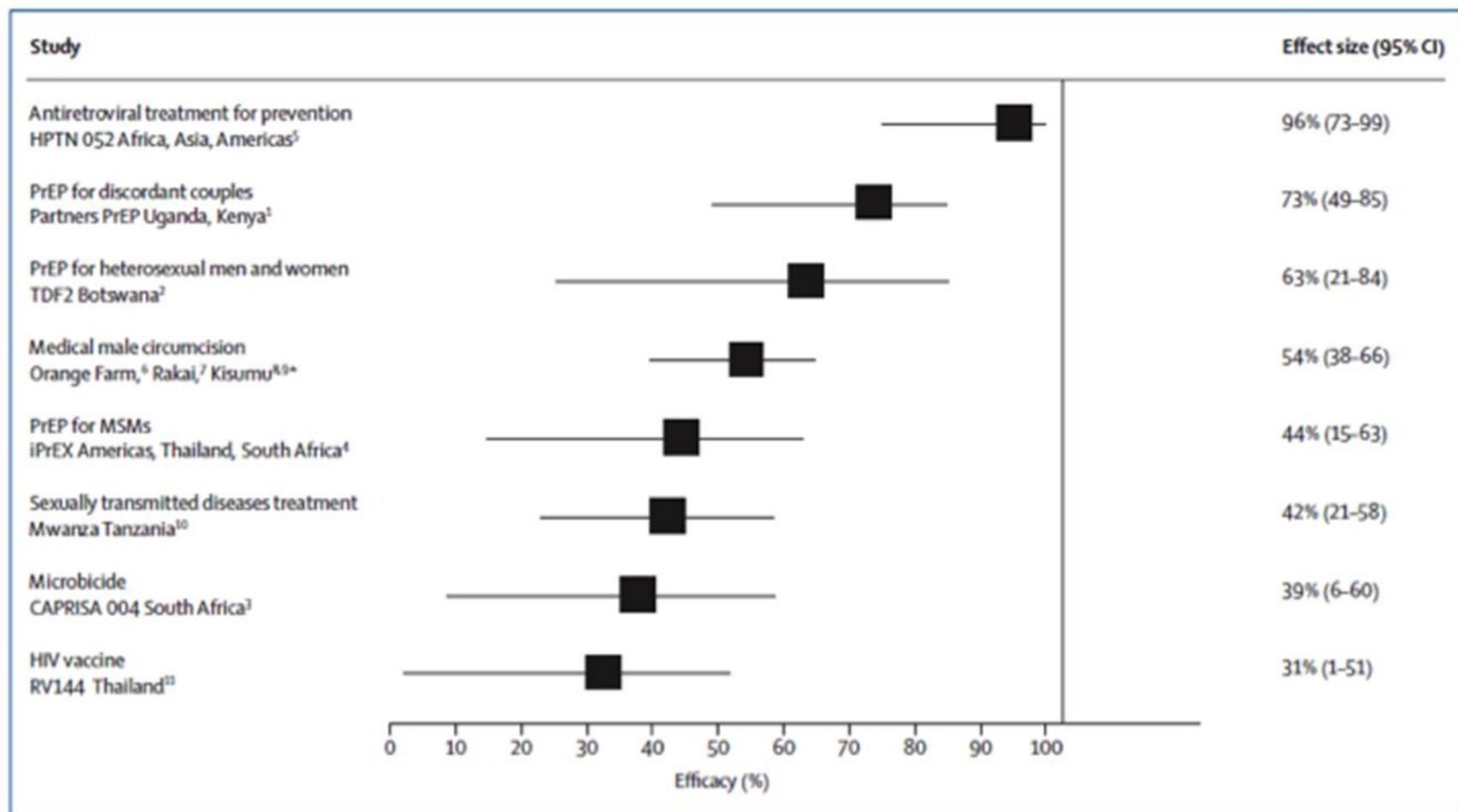


Figure: HIV prevention technologies shown to be effective in reducing HIV incidence in randomised controlled trials¹⁻¹¹

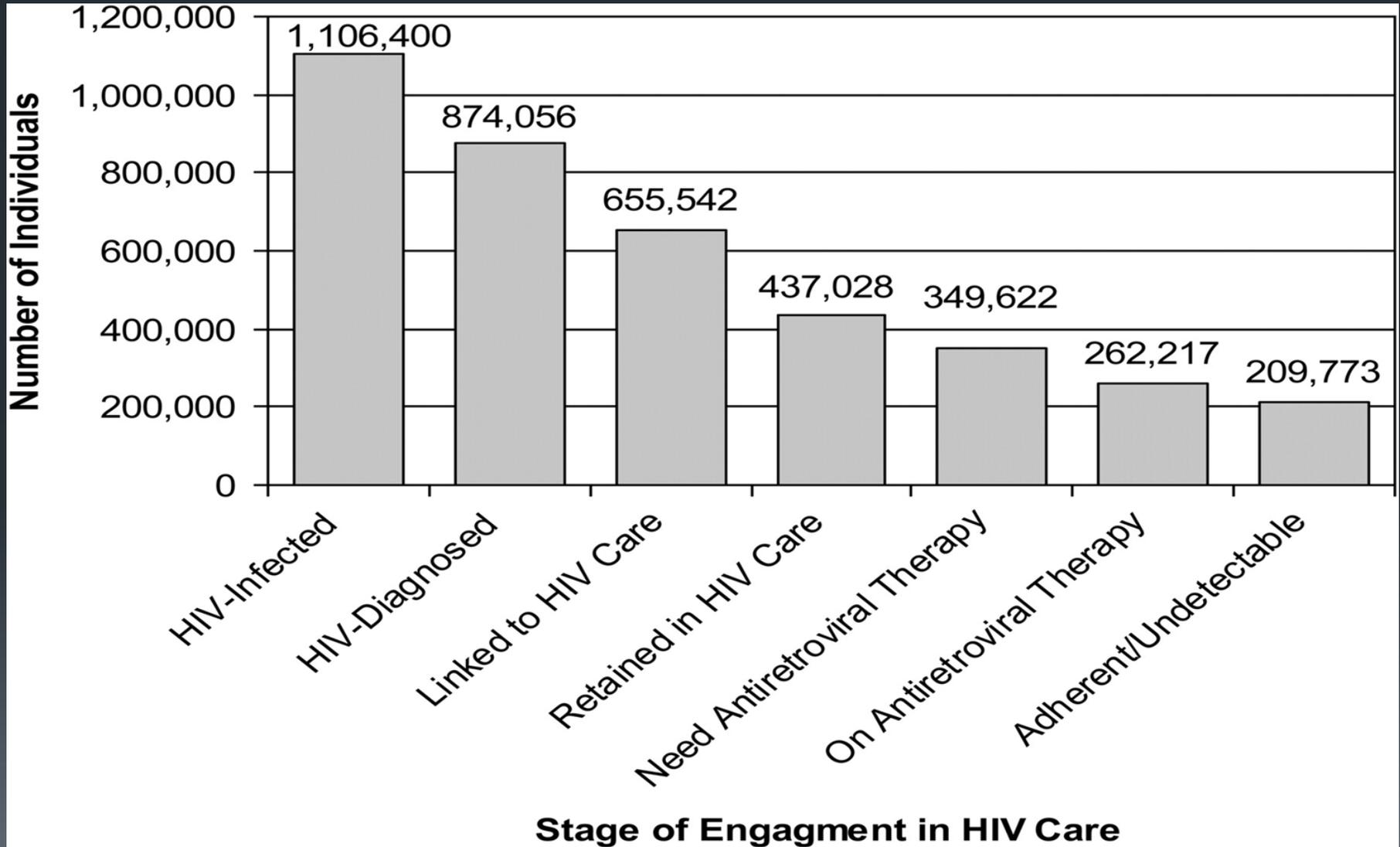
PrEP=Pre-exposure prophylaxis. * Meta-analysis of circumcision trials.

HIV TREATMENT “CASCADE”

GARDNER, EM, et al., Clin Infect Dis. (2011) 52 (6):793-800

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Only 19% were estimated to have suppressed viral loads in 2011



The HIV Care Continuum (HCC)

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- Federal plan to increase percentages reaching viral suppression (renamed from Gardner's treatment "cascade")
- Involves following stages, each of which must be facilitated:
 - Screening for initial diagnosis
 - Linkage to care
 - Retention in care
 - Treatment with antiretroviral therapy (ART)
 - Achieving undetectable viral loads
 - Transmission actually decreases with each successive stage, not just at the final one.

90-90-90: “An ambitious treatment target of UNAIDS”

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- Along same idea but simpler, UNAIDS and World Health Organization (WHO) recommend that all nations strive for “90-90-90”
 - 90% of infected diagnoses
 - 90% of diagnosed cases taking antiretroviral medication
 - 90% of treated patients reaching viral suppression (73% of all infected)
- All three measures are gradually increasing in most countries
- In US, 40 cities have joined a Cities Initiative to achieve this
 - Seattle probably first metropolitan area to achieve goal; Beyond AIDS Foundation recognizing with award for 2017
 - San Francisco has reportedly just accomplished the same

Public health efforts that could enhance progress through the HCC

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- Beyond AIDS Foundation has surveyed all state and territorial HIV/AIDS directors regarding four topics (funding and “expanded surveillance”):
 - Study shows considerable variability among jurisdictions
 - None of these are required by law or as conditions for CDC funding
- 1. **State/regional and local prevention funding**
 - To supplement CDC grants which are main source of funds
- 2. **Outreach to all newly reported diagnosed patients**
 - Assure linkage to care
 - Partner services
- 3. **Monitor diagnosed patients for whom viral load reports are NOT received**, e.g., for an entire year
 - Indicator for not being in care, unless moved out of jurisdiction
- 4. **Collect genotype and phenotype results to monitor viral resistance**, and/or to send data to CDC to monitor patterns

Provider efforts that can enhance the HCC (included in today's program) ¹²

- Make screening more routine in clinical care, to discover more undiagnosed cases
- Offer all diagnosed patients treatment ASAP
- Maintain patients in treatment
 - Follow up on missed appointments
- Follow viral loads (quarterly) to steadily suppress them
- Ancillary methods:
 - Pre-exposure prophylaxis for persons with potential high-risk exposures
 - Encouraging behavior changes to reduce risk