



HIV This Week: what scientific journals said

A blog from the office of the
Chief Scientific Adviser to UNAIDS



The Broadening HIV Prevention Landscape

Public Forum and Stakeholder Consultation

New Perspectives on HIV Prevention –
Opportunities and Challenges for Peru

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Zero new HIV infections Zero discrimination Zero AIDS-related deaths

Why we need a prevention revolution

The number of people accessing antiretroviral therapy has *increased 12-fold in just 6 years* but:

- Globally, 3 of every 5 people who are eligible for treatment^{°§} are not accessing it - 9 million people are waiting now
- New infections are outstripping expansion of treatment availability - **for every 1 person who starts taking antiretroviral treatment, another 2 are newly infected**
- Great progress yes - but we are not keeping up, we are increasingly behind
- We need a prevention revolution!

^{°§} 2010 WHO treatment guidelines (CD4 count 350 cells)



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UNAIDS Strategy: Getting to Zero

Vision and goals:

Zero new infections

Zero AIDS-related deaths

Zero discrimination

the

Strategic directions:

Revolutionize prevention

Catalyze the next phase of treatment care and support

Advance human rights and gender equality for

HIV response



Core Themes



People

Inclusive responses reach the most vulnerable, communities mobilized, human rights protected



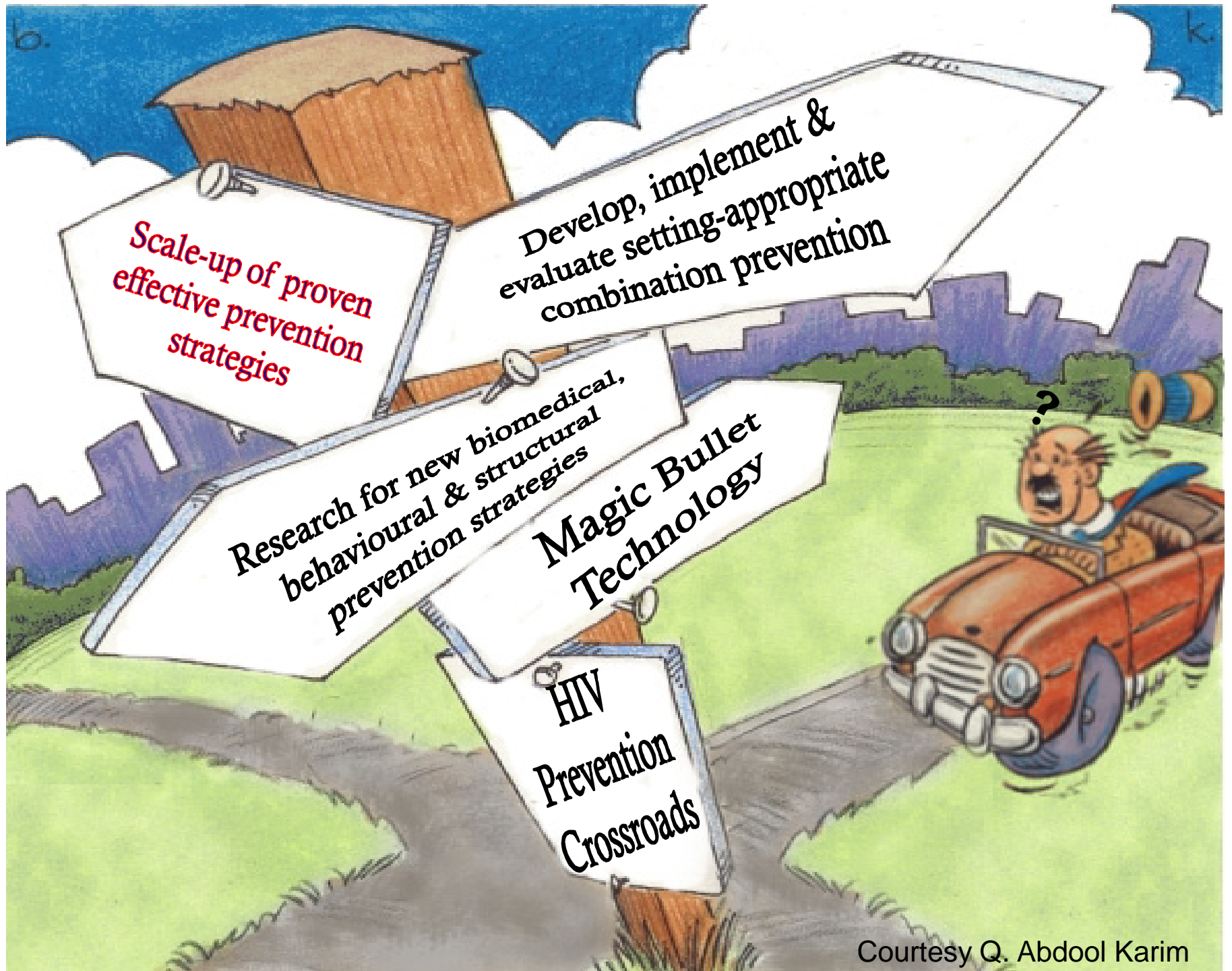
Countries

Nationally owned sustainable responses, financing diversified, systems strengthened



Synergies

Movements united, services integrated, efficiencies secured across Millennium Development Goals

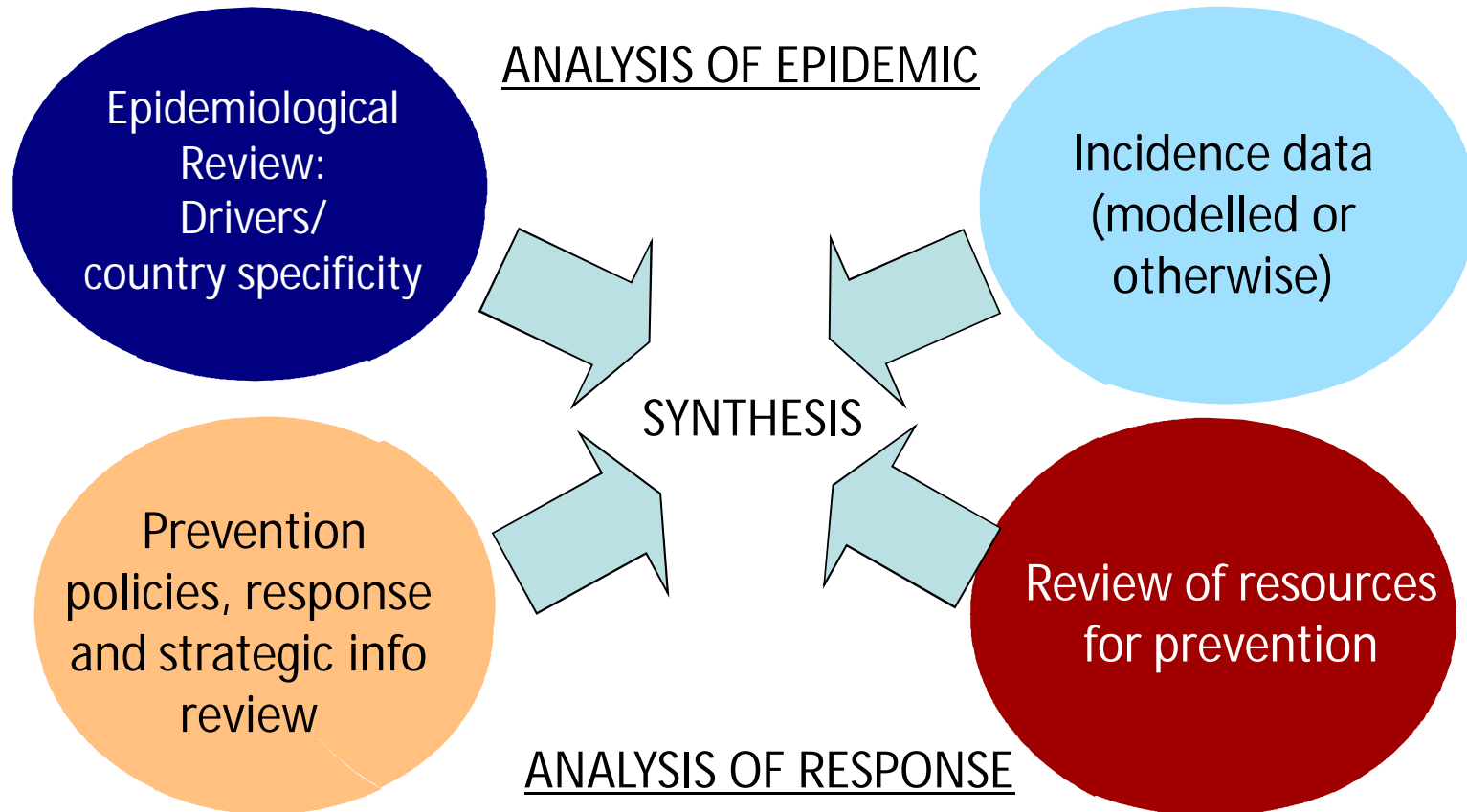


Courtesy Q. Abdool Karim

Combination prevention

- **Tailored** to national and local needs and contexts
- Combines **biomedical, behavioural and structural** elements—to reduce both immediate risks and underlying vulnerabilities
- Fully **engages** affected communities, promoting human rights and gender equality
- Operates **synergistically** on multiple levels—individual, family and society
- Invests in **decentralized** and community responses and enhances coordination and management
- **Flexible**—adapts to changing epidemic patterns and can rapidly deploy innovations

Know your epidemic and response synthesis process



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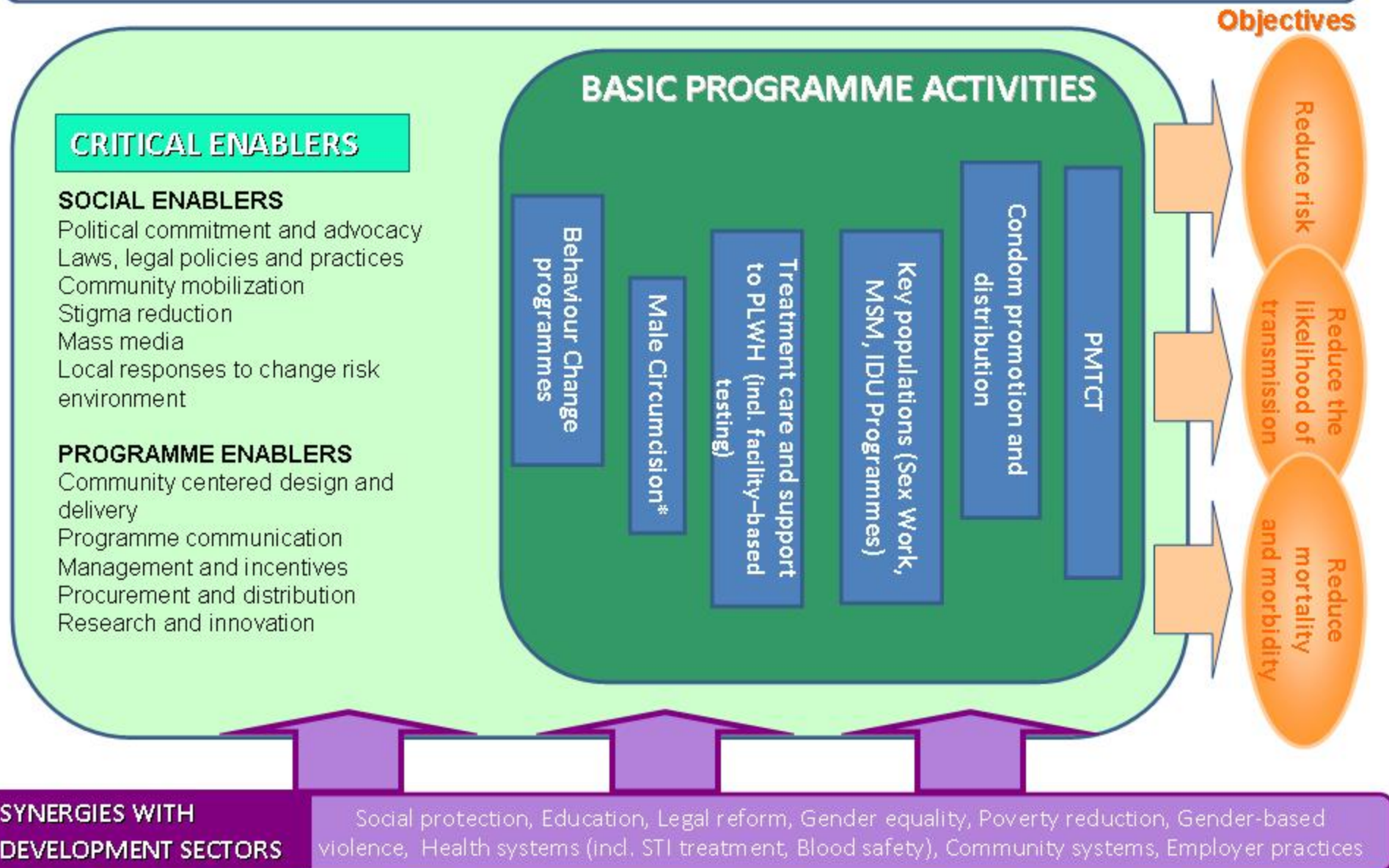
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Investment Framework

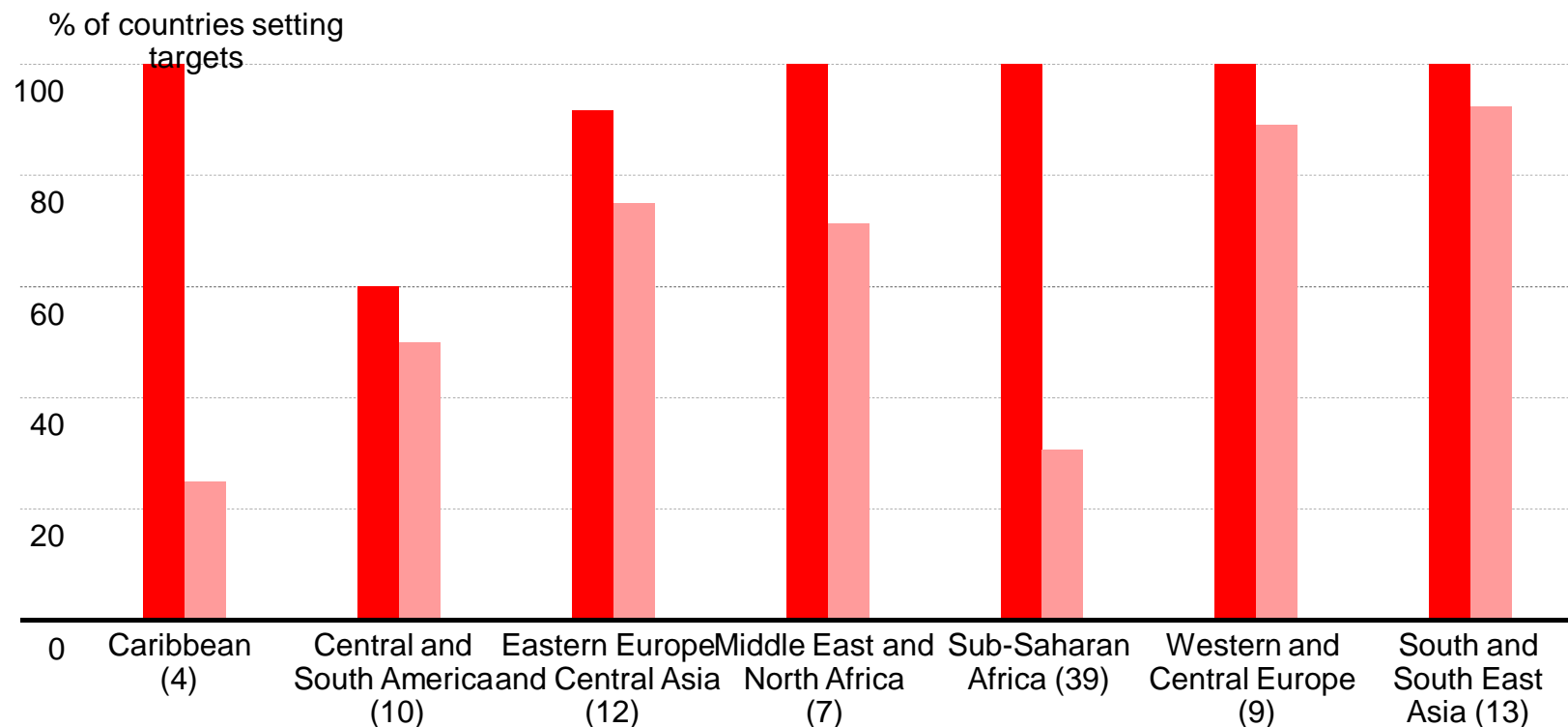
For Whom? Explicitly identify and prioritize populations based on the epidemic profile

How? Use the Human Rights approach to achieve dignity and security



* Applicable in generalized epidemics with low male circumcision prevalence

Countries setting universal access targets, by region 2004–2010



- ART Coverage
- Prevention targeting key populations

Insufficient data available from North America, Oceania, East Asia.



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The Risk Environment for People who Inject Drugs

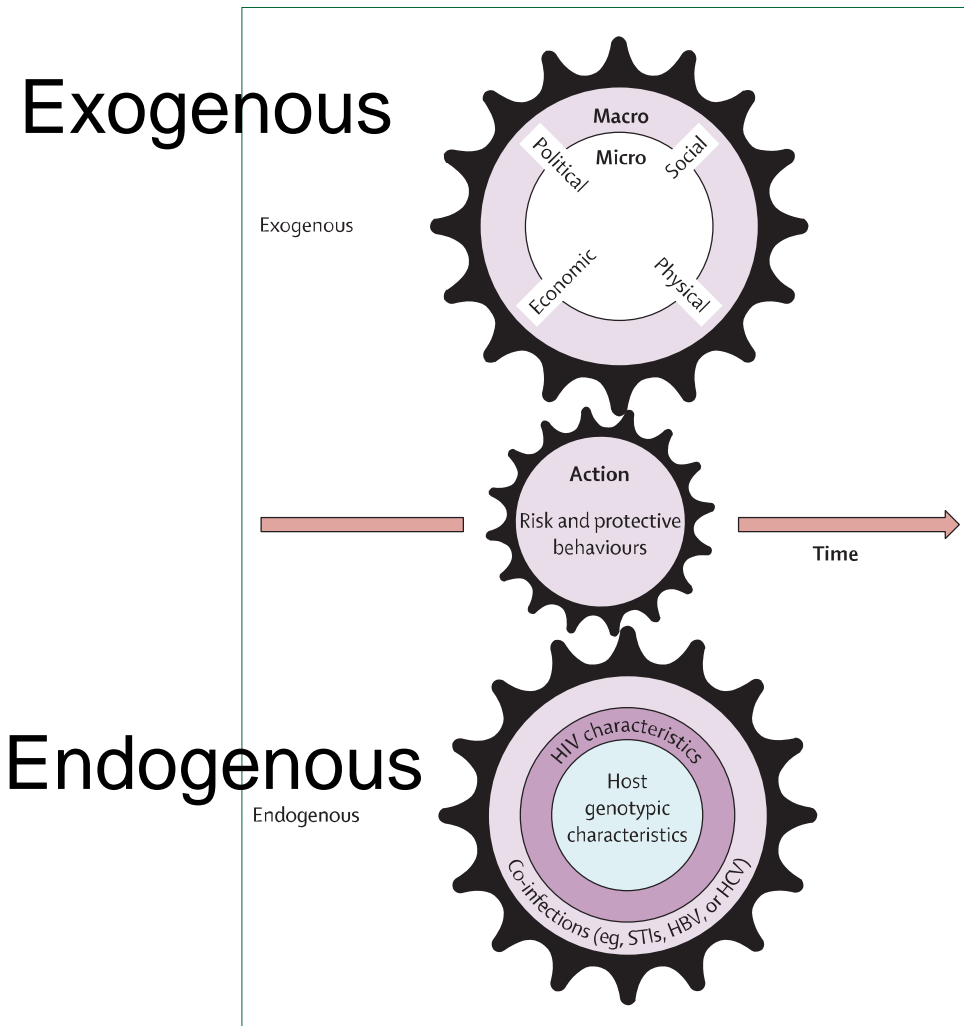


Figure 1: HIV risk factors in injecting drug users

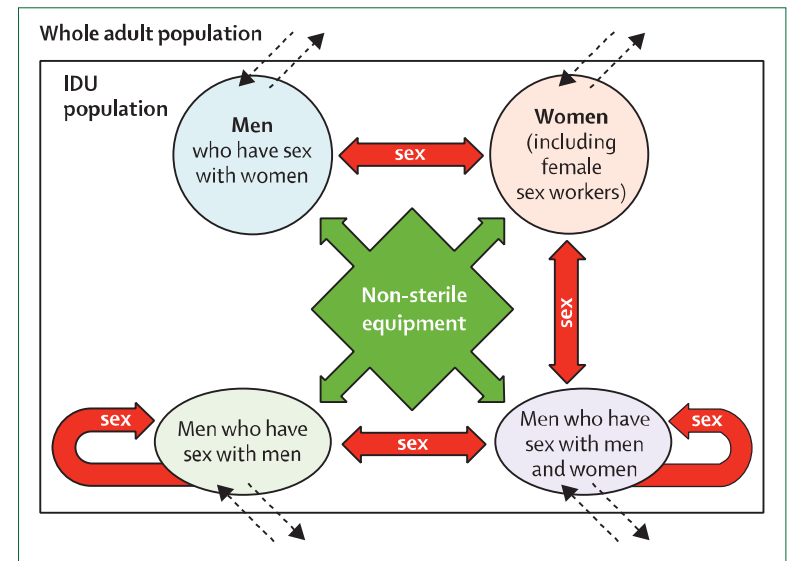


Figure 2: Routes of HIV transmission among populations of IDUs
Population subgroups and risk of HIV infection from shared use of injection equipment (green arrows) and sex (red arrows) are shown. Dashed arrows show entry and exit to the injecting drug user population (ie, start or stop of drug injections). IDU=injecting drug users.

Which approaches have been proven effective and warrant scale up for preventing sexual spread of HIV?



Male and female condoms

- Male condom effectiveness

- Meta-analyses: Greater than 90% when used correctly and consistently

(Condoms for HIV prevention in developing countries: a review of the scientific literature. UNAIDS 2003)

- Cochrane Review: always vs. never: 80% reduction in incidence



- Female condoms: (Peters et al 2010)

- minimal investment in R&D by global public policy makers; resultant **price monopolies: 25 times price of male condom**
- **WHO ambivalence** to recommend washing and reuse
- **lack of active promotion by UNAIDS** contributing to low demand
- stock-outs
- underproduction with no economies of scale
- Good acceptability with **frustrated demand**



Sexually transmitted infections (STI)

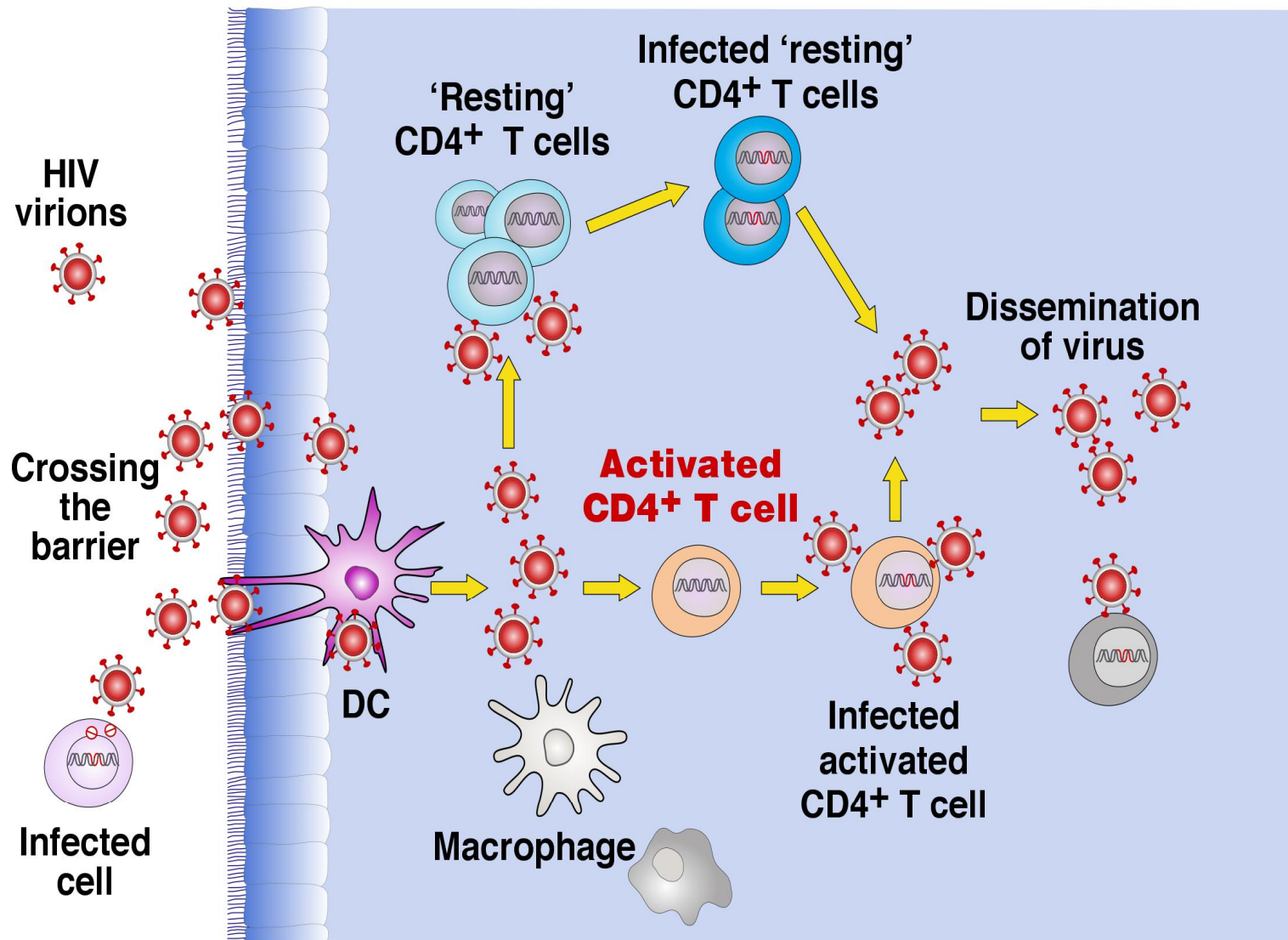
- majority of STI cases worldwide are viral (HSV-2, HPV) and not curable through syndromic management
- STI treatment is important to reduce symptoms and onward STI transmission.
- Same strategies prevent sexual transmission of STI as prevent sexual transmission of HIV
- Asymptomatic HSV-2 shedding suggests ongoing inflammatory processes; HSV-2 suppression trials flat
- Preventing HSV-2 has potential for significant declines in transmission of HIV



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Activated CD4⁺ T Cells are Difficult for the Virus to Find Beneath the Uninflamed Mucosa



Sexual Transmission of HIV is Typically the Result of a Single Infectious Event

