

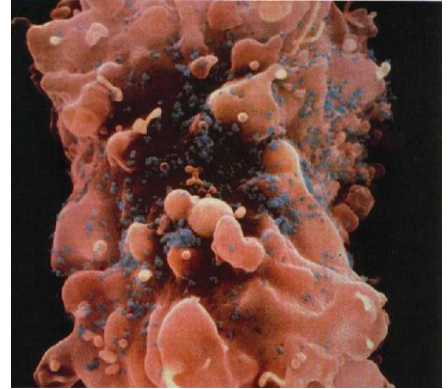
# Numbers saving lives

David Wilson



# Health Challenge

- HIV/AIDS causes large morbidity and mortality around the world
  - **2.5 million** people newly acquire HIV each year
  - **1.7 million** die from HIV/AIDS annually
  - **35 million** people currently living with HIV






# Epidemic type generally aligned with geography and political and economic status

Epidemics driven by **sex between men**:  
North America, Western Europe,  
and Australasia

Epidemics driven by **people who inject drugs** in  
Eastern Europe, Central Asia,  
Indonesia and the Philippines

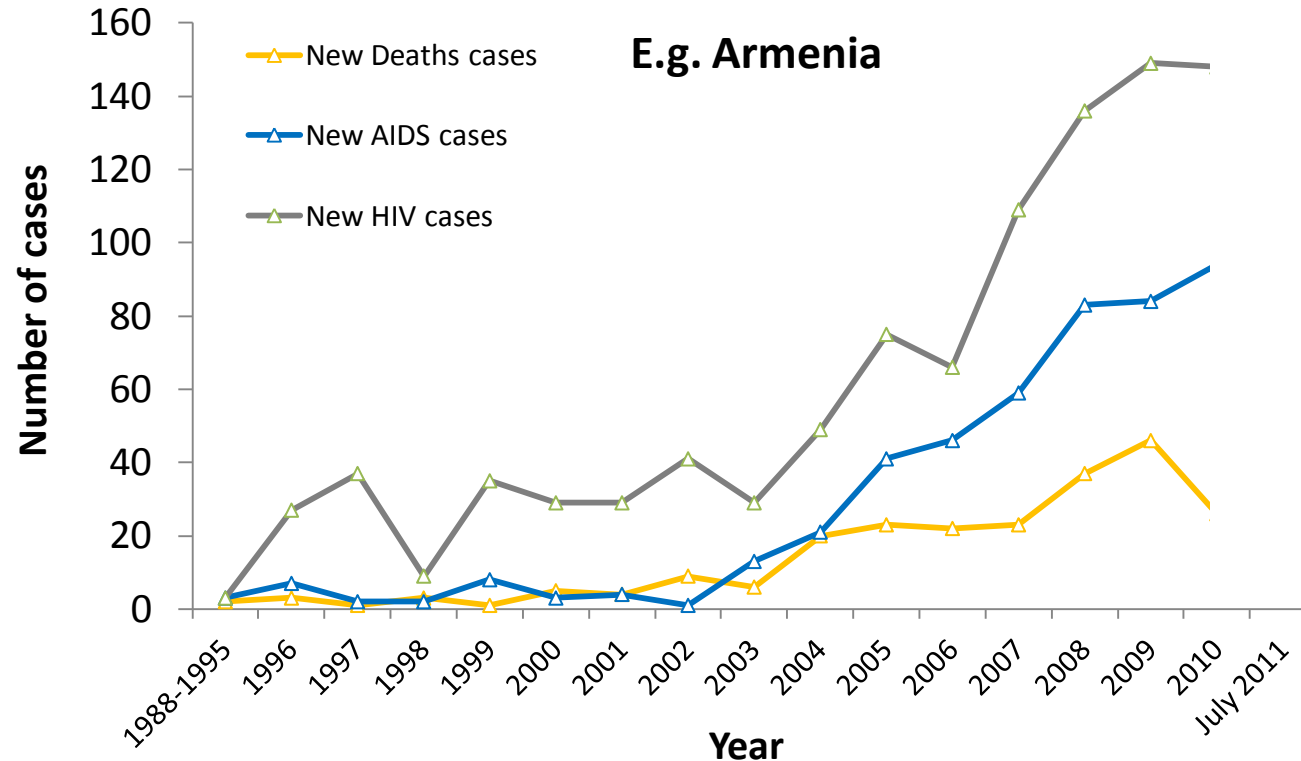
**Sex work driven** epidemics (first wave)  
in India (outside the North East),  
Thailand and Cambodia

-  Concentrated
-  Generalised
-  Uncertain

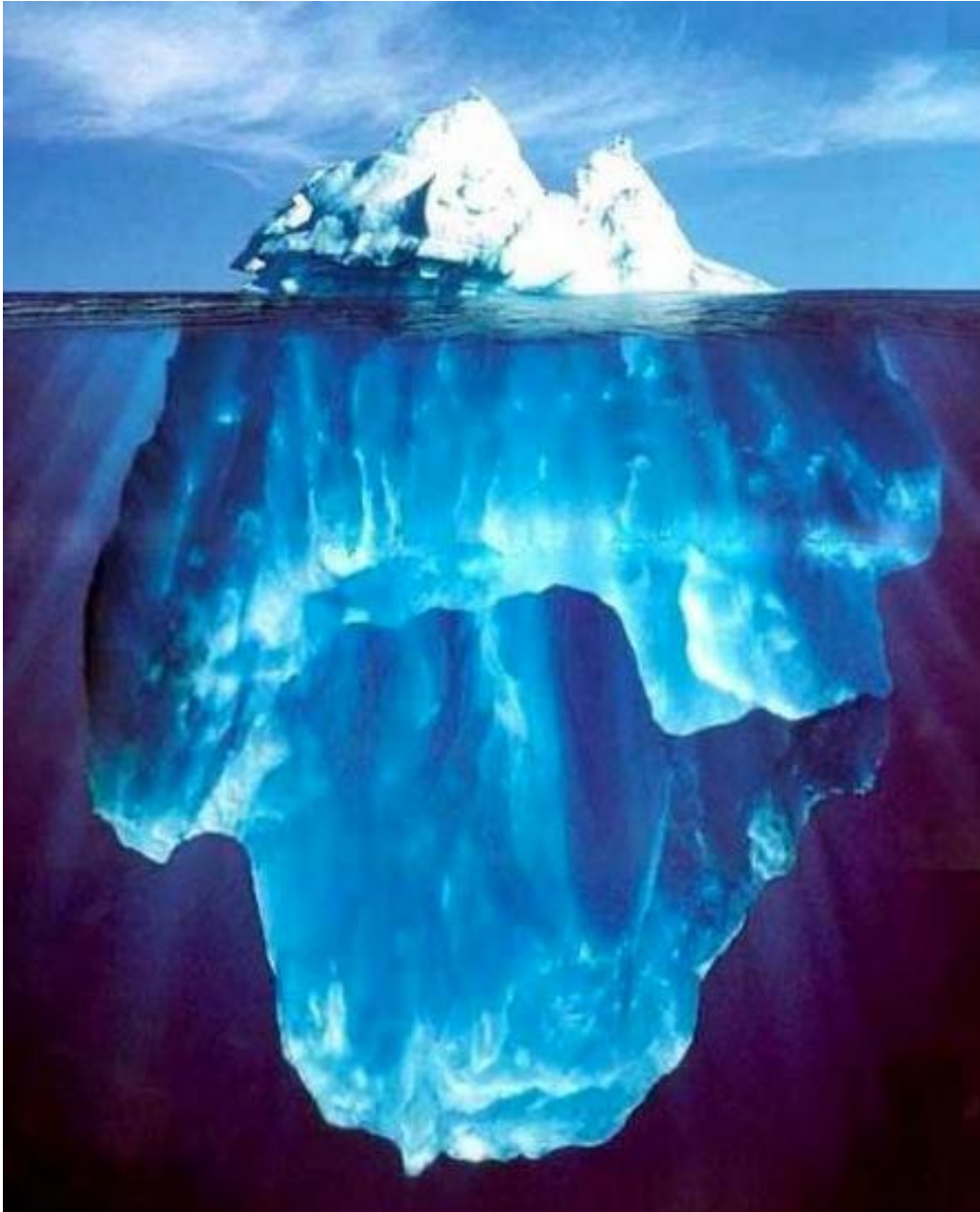


# Health Challenge

- Emergency responses, not implementing what works and well
- + Limited resources, so programs not implemented to scale
- + Pseudoscience traditions
- = HIV epidemics increasing in Eastern Europe and Central Asia



# Health Challenge: many more undiagnosed



## **HIV-infected**

- **10-15% of drug users**
- **3-fold increase among sex workers (2007-2010)**
- **Large emergence among men who have sex with men**

# Eureka moment

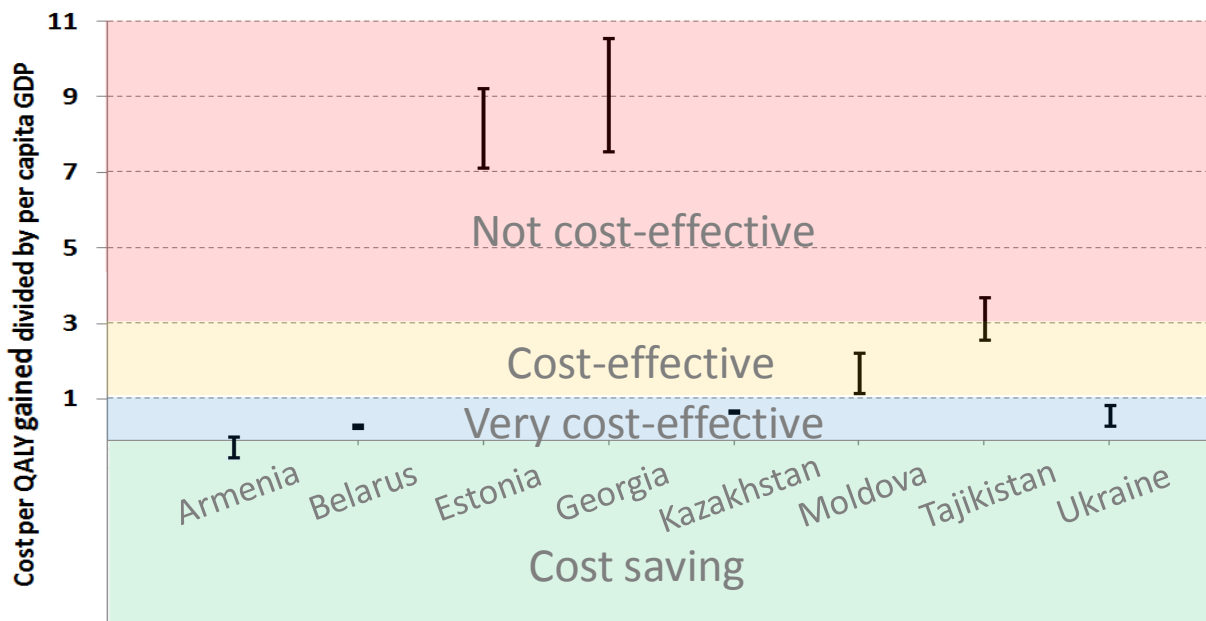
- Realising that outcomes might be relatively 'predictable', therefore strategic policy and program decisions could be made smarter with new logical frameworks
- Using a quantitative analytical skill set and pragmatic outlook
- All that is required is 'a little analysis' with pragmatism to bring about transformative change

# Innovation: approach

- Develop a framework for establishing hard evidence of what works
  - Population impact in biological endpoint
- Evidence of impact (for health) is not sufficient
  - An economic argument is also necessary
  - Work with the Ministry of Health AND Ministry of Finance
- Apply 'gold standard' approaches used in NSW
  - Return on investment of NSPs
- Coordinate political negotiations (at highest levels first)
  - United Nations
  - Country governments
- Take every opportunity and be tenacious during opportunities

# Practical steps

- Coordinate multi-country consortium
  - Workshops (Chisinau and Minsk)
  - Collect and interrogate data
  - Working with country partners (+capacity building)
  - Rigorous assessment of evidence of effectiveness
  - Economic analyses
  - Report signed off by UNAIDS and governments



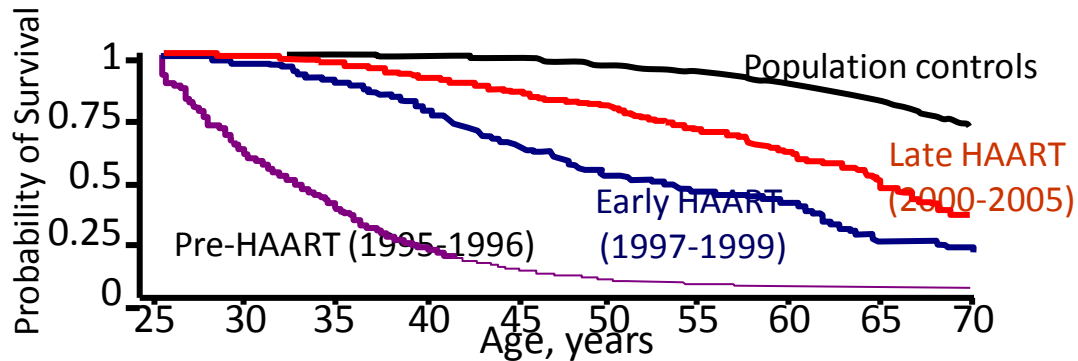
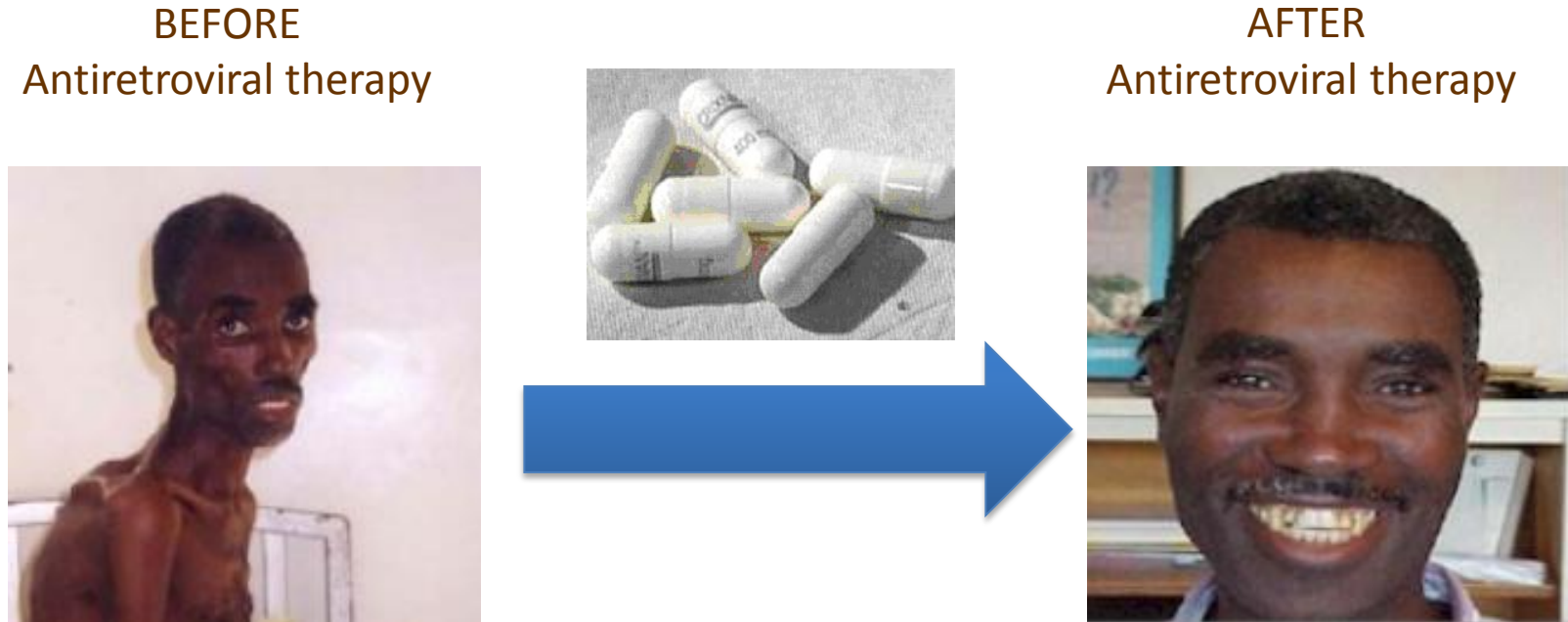


# Practical steps: take strategic opportunities where impact can be made

- Invited to develop the National Strategic Plan for Armenia
  - Assess the situation
    - Not only is there limited prevention but more importantly far too many people are dying
    - In the era when effective treatments have been available, which keep people alive, over 25% of people with HIV in the health system have died

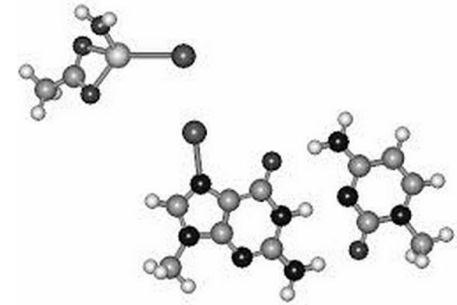
# Treatment for HIV

- RCTs, observational studies, population life expectancies



Lohse N, et al. *Ann Intern Med* 2007;146:87-95

# Treatment for HIV in Armenia

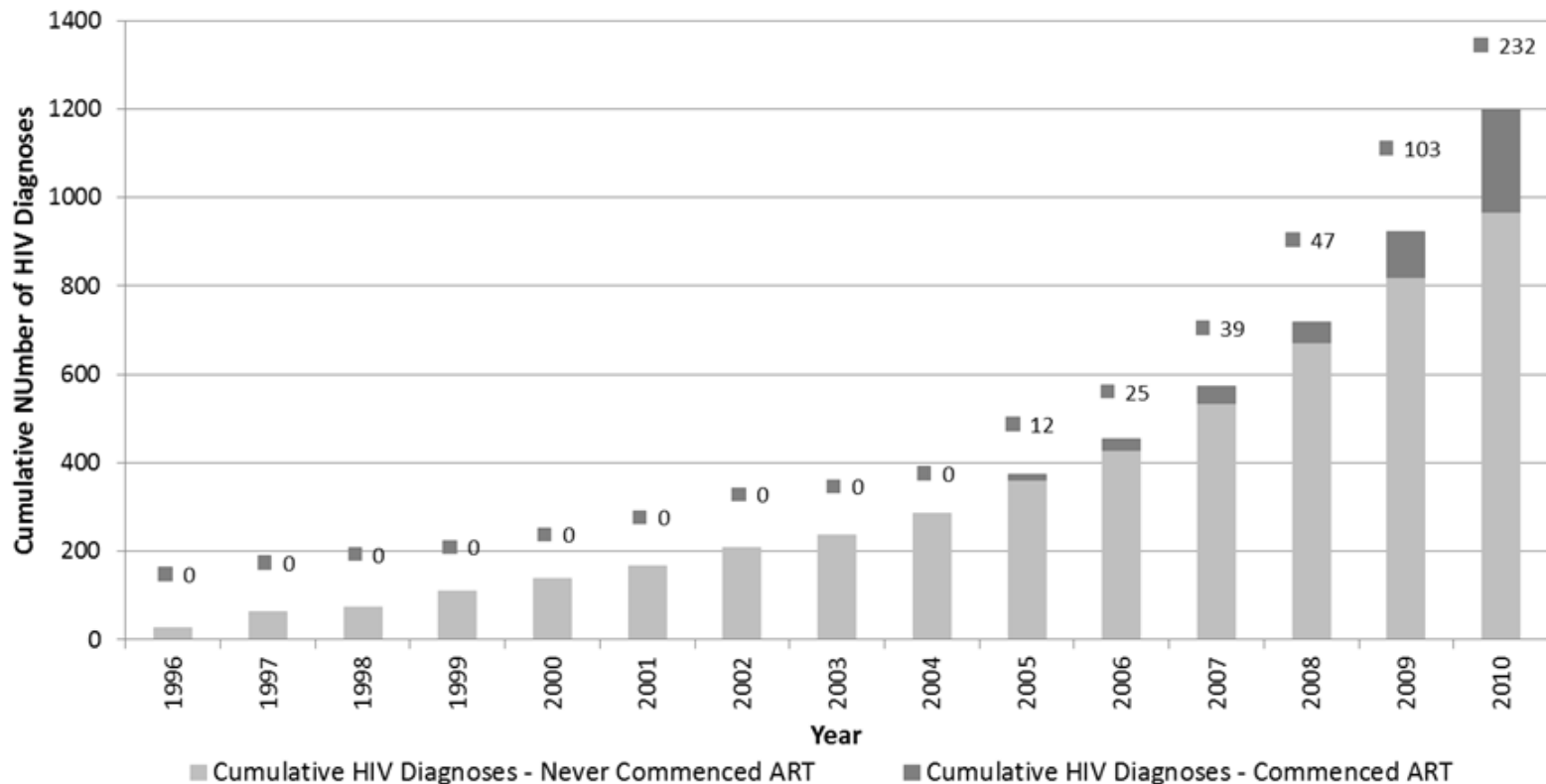


- Based on iodine and mineral salts
  - Iodine is toxic *in vitro* to kill virus
- Thyroid toxicity / damage and mental retardation side effects
- No randomised controlled trials
- No published evidence of immune recovery and survival over time among patients on Armenicum versus ART
- Government and country pride
  - Large investment into clinics

# ART coverage extremely low: majority of diagnosed cases should be on ART

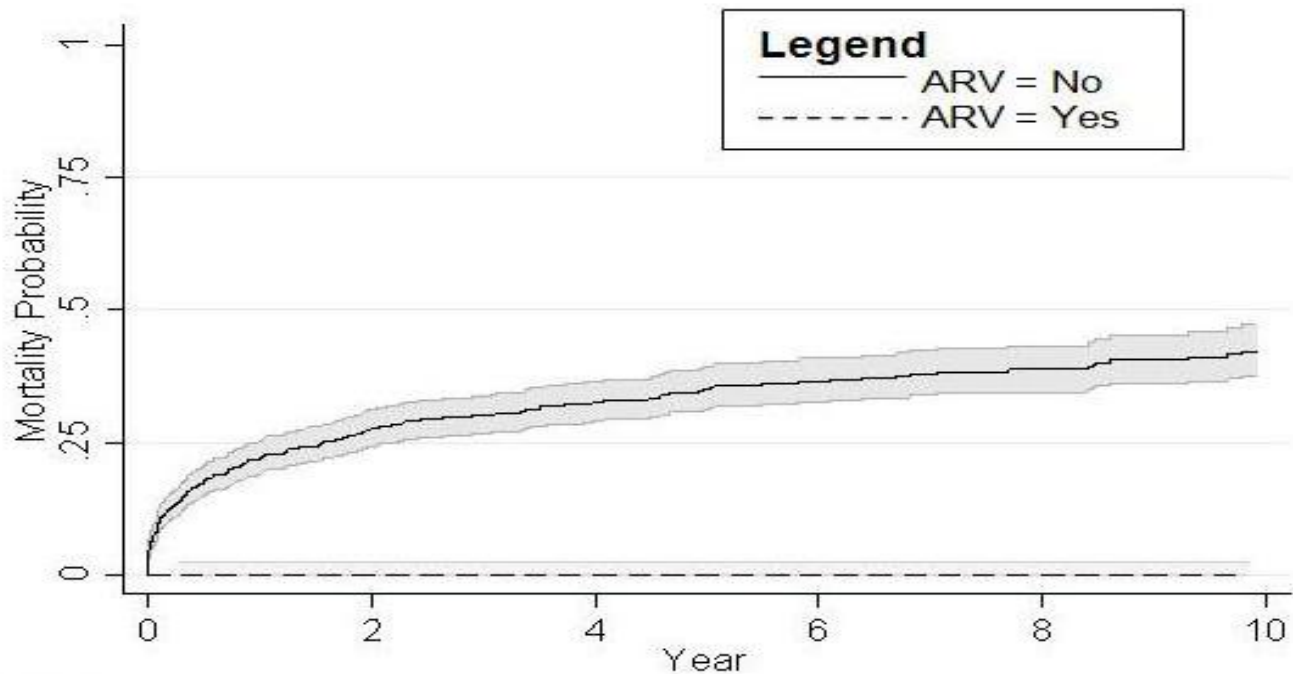
- Half of the cases already developed AIDS

Cumulative number of people diagnosed with HIV in Armenia (1996-2010), by whether they commenced antiretroviral therapy (to end of 2010)



# Highlighting national data

- 35% chance of death with standard of care
- 0.35% chance of death per year on ART
- 0.99 times lower risk for ART



Number at risk		0	2	4	6	8	10
ARV = No	686	393	249	192	143	104	
ARV = Yes	282	201	107	49	26	14	

# The Republic of Armenia National Strategic Plan HIV/AIDS, 2012-2016

3-1

Ensure access to antiretroviral therapy for people living with HIV

*The primary treatment goal of this National Strategic Plan is that by 2016, all registered PLHIV in Armenia are treated with ART according to National Guidelines.*

Substantial efforts ... to improve the availability, accessibility and affordability of antiretroviral-based therapy since ART remains the only treatment demonstrated to reduce morbidity and mortality among PLHIV.

- Target of 80% coverage

## National guidelines

- Align with the then WHO guidelines to treat all people with CD4 < 350
  - Vast majority of people diagnosed in Armenia

“Healing is a matter of time but sometimes it is also a matter of opportunity”

- Hippocrates, Precepts, Chapter 1

