



## The Security Impact of HIV/AIDS

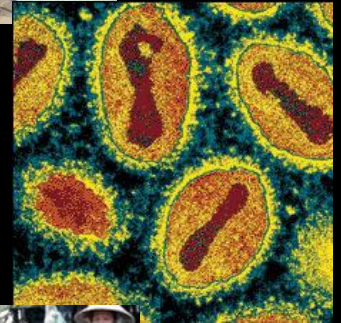


Laura M. Kelley November 20, 2006 Harvard SPH

# Introduction to the Issues

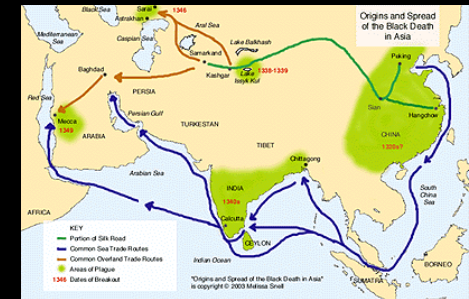
# Historical Impact of Disease

- Decline of the Byzantine Roman Empire
- Rise of post-feudal Europe
- End of an early globalization period in China
- Conquest of Tenochtitlan and fall of the Aztec Empire
- Colonial expansion in North America
- Allied victory over Germany in Spring Offensive of 1918.



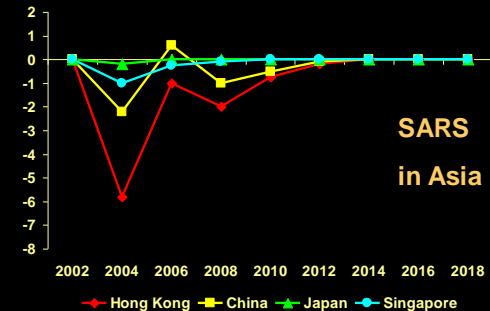
# Mechanisms of Change

- Diseases do not respect international borders
- Infections spread rapidly – and have ALWAYS done so
- Microbes are not “socially neutral” – they tend to affect the poor far more than the wealthy
- Impact of morbidity and mortality on society, economy and political structure



# Security at a Distance

- Military preparedness
- Steady economic growth
- Uninterrupted trade and travel
- Steady supplies of food and goods
- Continuity of public services
- Rule of law



# Security Under the Lens

- Ability to earn a living and support a family
- Ownership of means of production
- Familial cohesiveness
- Social disruption and dislocation
- Education of children
- Famine





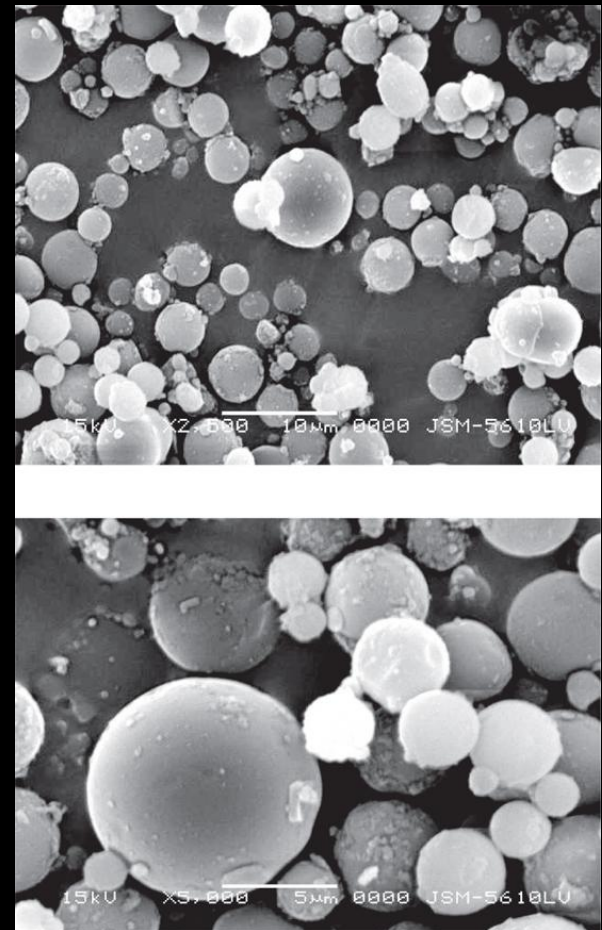
# Size Matters

- Size of state
  - governable territory
  - level of development
  - size of economy
  - diversity of economy
- Size of population to be served
  - Demographics
  - cultural characteristics
  - gender politics
  - expectations for service
- Size of family
  - wage-earning adults
  - children
  - other dependents



# Scale and Scope also Matter

- Which unit do you serve, the individual or the state?
- As you move from the individual to the population level will the decisions you make in terms of program design be the same?
- Is what is good for individuals also most beneficial to the state?





# Money and Resources Matter

- Money and resources are limited and affect program design.
  - human resources
  - support services
  - supply chain
- Quality of existing health system and services may help determine program and service design
  - choice between facility-based or community-based delivery
  - consider adding on to or expanding existing programs
- Which services to deliver and how best to *allocate* them?



# **The Security Impact of HIV/AIDS**

## **(So far . . .)**

# Little Impact of HIV/AIDS on African Militaries

- In Africa, state military infection prevalence equal or slightly above infection rates in general society. Some data suggest a very high seroprevalence in some peacekeepers.
- High rates of infection in officer corps and lower-ranking soldiers alike.
- Nature of conflict in Africa has been dominated by civil wars.
- Military-to-military prevention and treatment programs make future impact less likely.



# Little Impact of HIV/AIDS on Economic Growth

- Estimates vary, but generally show that either there is very little impact of HIV/AIDS on GDP or that we don't know how to measure the impact.
- Massive long-term unemployment
  - South Africa 41%
  - Botswana 23%
- High rates of regional migration
  - “circular” migration to areas with jobs and then back home.



# Scaled Impact of HIV/AIDS on Business

- Smaller companies and industries requiring a stable cadre of skilled workers have felt the impact of HIV/AIDS.
- Absenteeism, need to pay benefits, accidents, decline in productivity.
- Some industries (utilities and media) hit harder by “AIDS Tax” than others (retail, mining and metals processing).
- Workplace education, prevention and treatment for worker and family can reduce the impact of illness on the company.



# Devastating Impact of HIV/AIDS on Individual Households

- As the millions of men and women who have died from AIDS have perished, families have disintegrated.
- Millions of AIDS orphans are cared for by relatives, the state or by no one at all.
- Women with young children are sometimes forced out of homes and off land by the deceased husband's family.
- Morbidity and mortality have brought about massive changes. The societal transformation is already underway.





# Decline in Public Services Quality

- Shortages of teachers due to illness and death from HIV/AIDS.

- KZN
- 11 teachers die each day
  - By 2010 one in four will be infected



- Shortages of healthcare workers
  - Many emigrate for better working conditions and pay
  - HIV/AIDS infection prevalence of 15.7 % in South African healthcare workers
  - 30% mortality over 20 years in Ugandan healthcare workers



# Social Dislocation and Disruption

- Social networks disintegrating
- Empty space can be filled by other groups who can provide services that the government cannot.
- Direct and indirect psychological impact of deaths of family and friends.

May Day, 2002

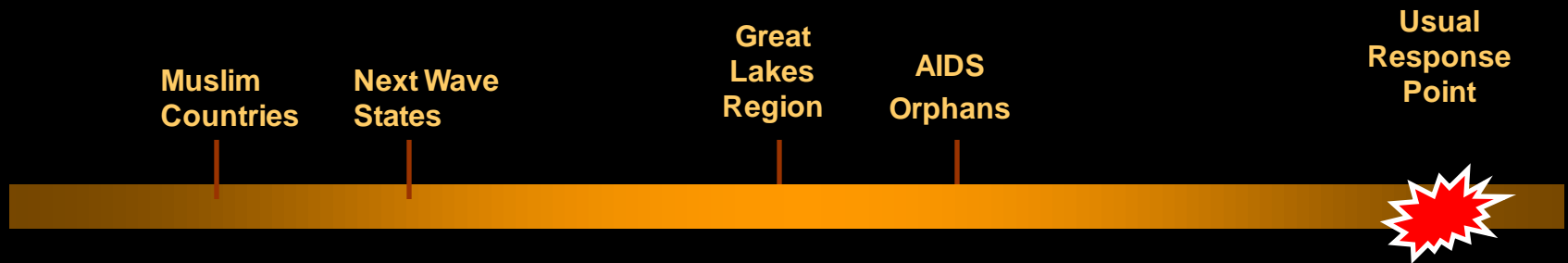


May Day, 2003



# The Global Public Health Crisis is Now

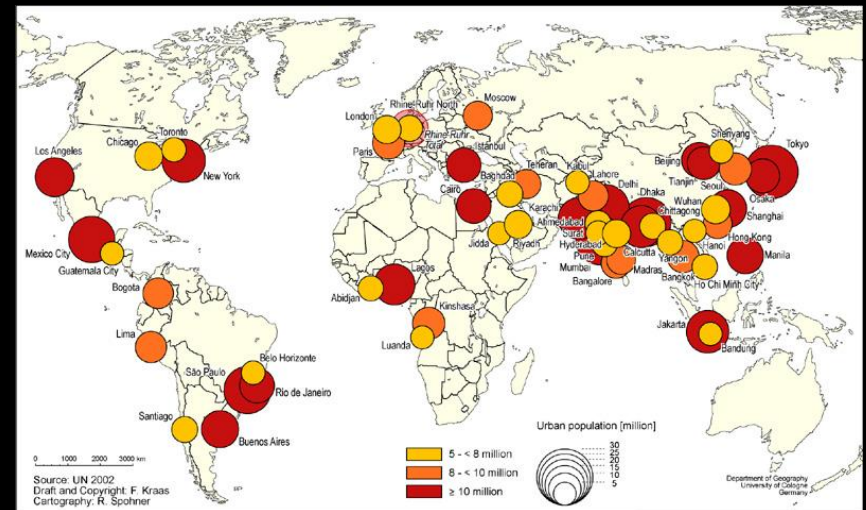
- Step up response to Africa and initiate planning and delivery of social, legal and medical services to other large, populous countries.



# **Future Security Impacts**

# Urbanization will Increase Household Impact

- Health systems will not grow at same quick pace as population influx and will be severely strained.
- Increase in the size of urban slums and “illegal” dwellings.
- Extended family will give way to the nuclear family as populations urbanize.



# Impact on Business More Widespread

- Smaller companies and sensitive industries may fail.
  - small companies may merge to stave off potential impact.
  - growth of employer-delivered HIV/AIDS services.
  - governments can consider subsidies and incentives
  - job training programs to keep pool of healthy workers available.
- Those businesses that manage the changes brought about by HIV/AIDS will do well.





# Families and Societies in Hard-hit areas will Continue to Disintegrate

- Families will continue to disintegrate. Widowed women and children will work as low-cost service providers and be vulnerable to exploitation, prostitution and trafficking.
- Increase in crime; self-medication by the needy and desperate leading to increases in drug and alcohol abuse.
- The rolls of the “have-nots” will swell; a deep poverty hole will be dug that may not be alleviated for decades.



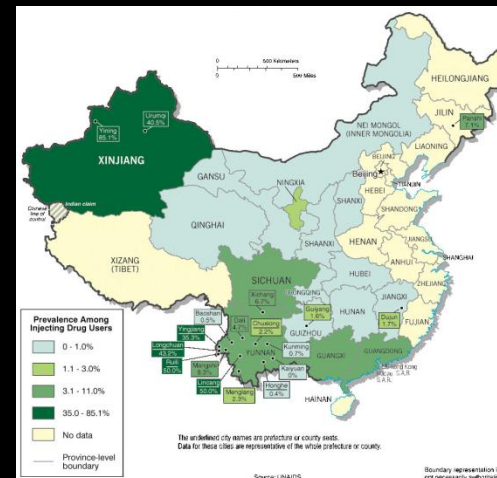
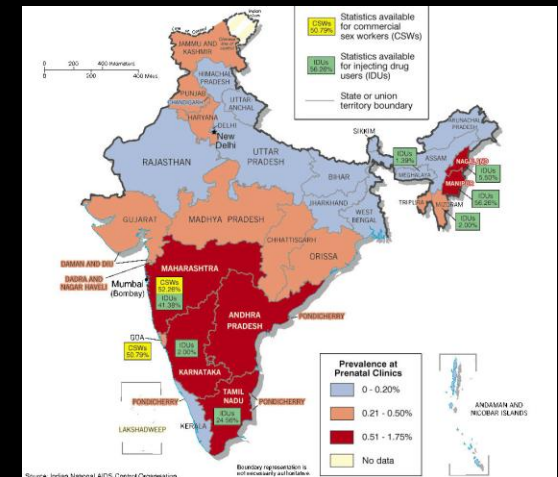
# An Ill Wind Will Also Blow Some Good

- Uninfected and ill under treatment or in early stages of disease can begin to demand higher wages or better working conditions for their services.
- Countries that are now “overpopulated” will be smaller and potentially more prosperous.
- Some will profit from the misfortune of others by buying up land or goods from the sick or dying.



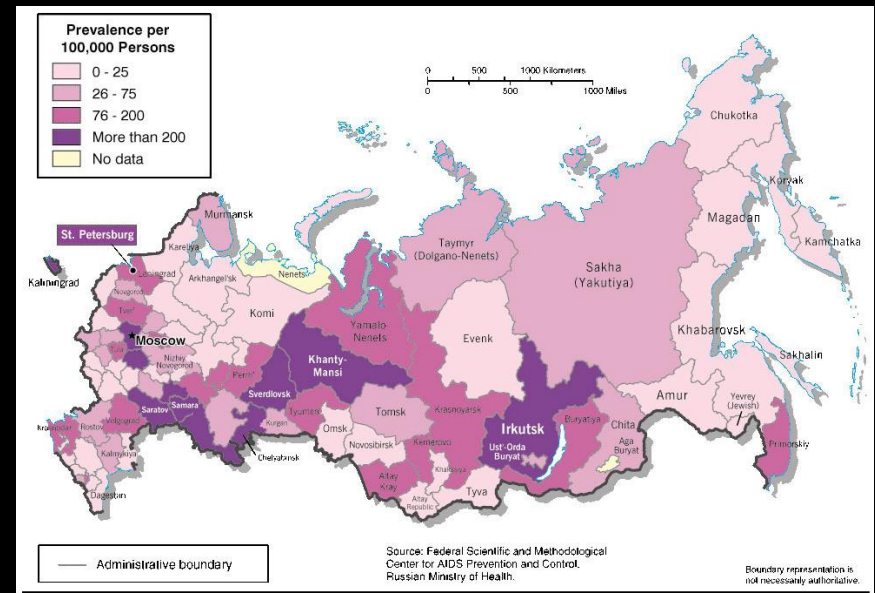
# Trends in Africa Today Will Hit India and China Tomorrow

- Rural and urban areas where sexual transmission of the disease predominates are at future risk for all of the social and economic ills that Southern Africa is now experiencing.
- Dependency ratios in China will counter the protection offered by a large population.



# Territorial Integrity Will be Problematic

- Southern Africa may no longer have a Lesotho or a Swaziland.
- The Russians will have to take decisive action to secure the Russian Far East.



# Adaptation will Follow Endemicity

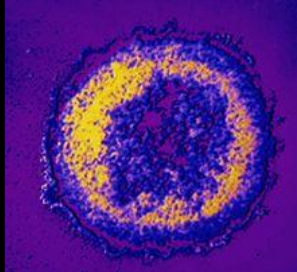
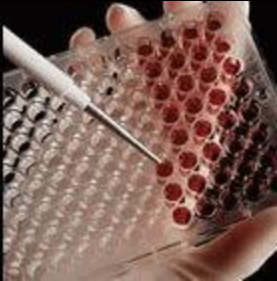
- People now infected will die.
- Eventually HIV will become an endemic virus - like polio. Humans will adapt to the risk of infection by reducing their risky behaviors.



# Summary and Conclusions



# No Magical Medical Bullet by 2020



- Medical response will NOT include a preventative vaccine
- First-line medications will be of limited usefulness because of mounting resistance. More expensive second-line medications will be required in many places.
- Vaccine candidate that slows the progression of disease may be licensable.
  - good candidate identified by 2015
  - potentially deliverable by 2020.
- Not all avenues of vaccine research are being exploited in the west because of liability issues. Live vaccines may hold preventative key.

# Response Planning Over-medicalized



- **Number of courses of antiviral medications and facility-based care have been centerpieces of response strategy**
- **Must BETTER address social ills: Increase funding to social programs and NGOs delivering social services. Social services integrated with medication distribution.**
- **Needs for INCREASED attention to present and future economic consequences: Risk of small businesses folding; possible need for subsidies and insurance.**
- **Without immediate attention to prevention, the sustainability of large vertical programs is questionable.**

# AIDS Will Transform Society



- **HIV/AIDS is a security threat:** Not because it makes soldiers ill or shaves a few points off of GDP. It is a threat because it changes lives at the household and village level and has already begun to rend the fabric of society in hard hit areas.

# The Era of Big Check Writing Must End



- It is not enough to just fund programs, human resources must be urgently diverted to soften the near-term impact of this disease.
  - Simplified approaches that don't require trained medical personnel.
  - AIDS-corps workers.
  - Community-based service delivery.
  - More attention to social and legal services.
  - Return to behavioral change to prevent disease.