

# HIV/AIDS, Happiness and Social Reproduction

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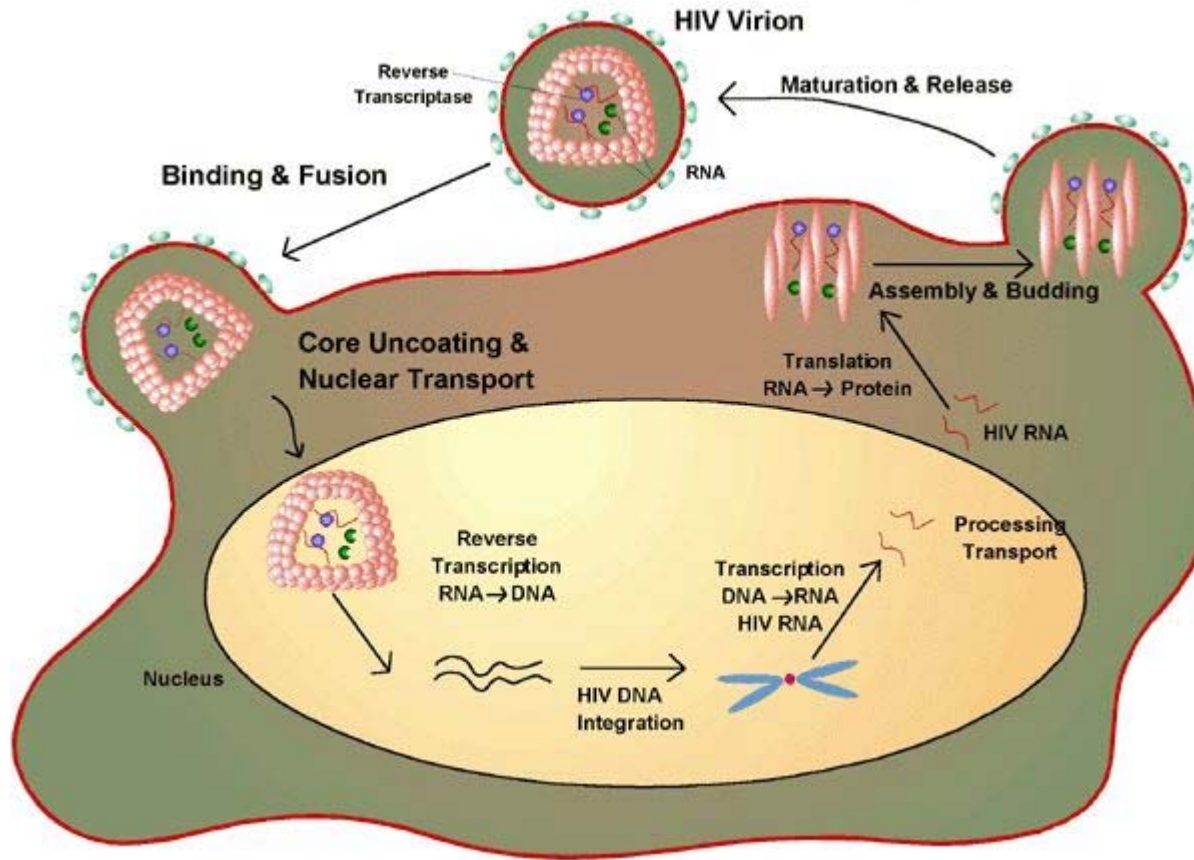


THE PROBLEM  
THE MICRO-MACRO  
RESONANCE

# HIV

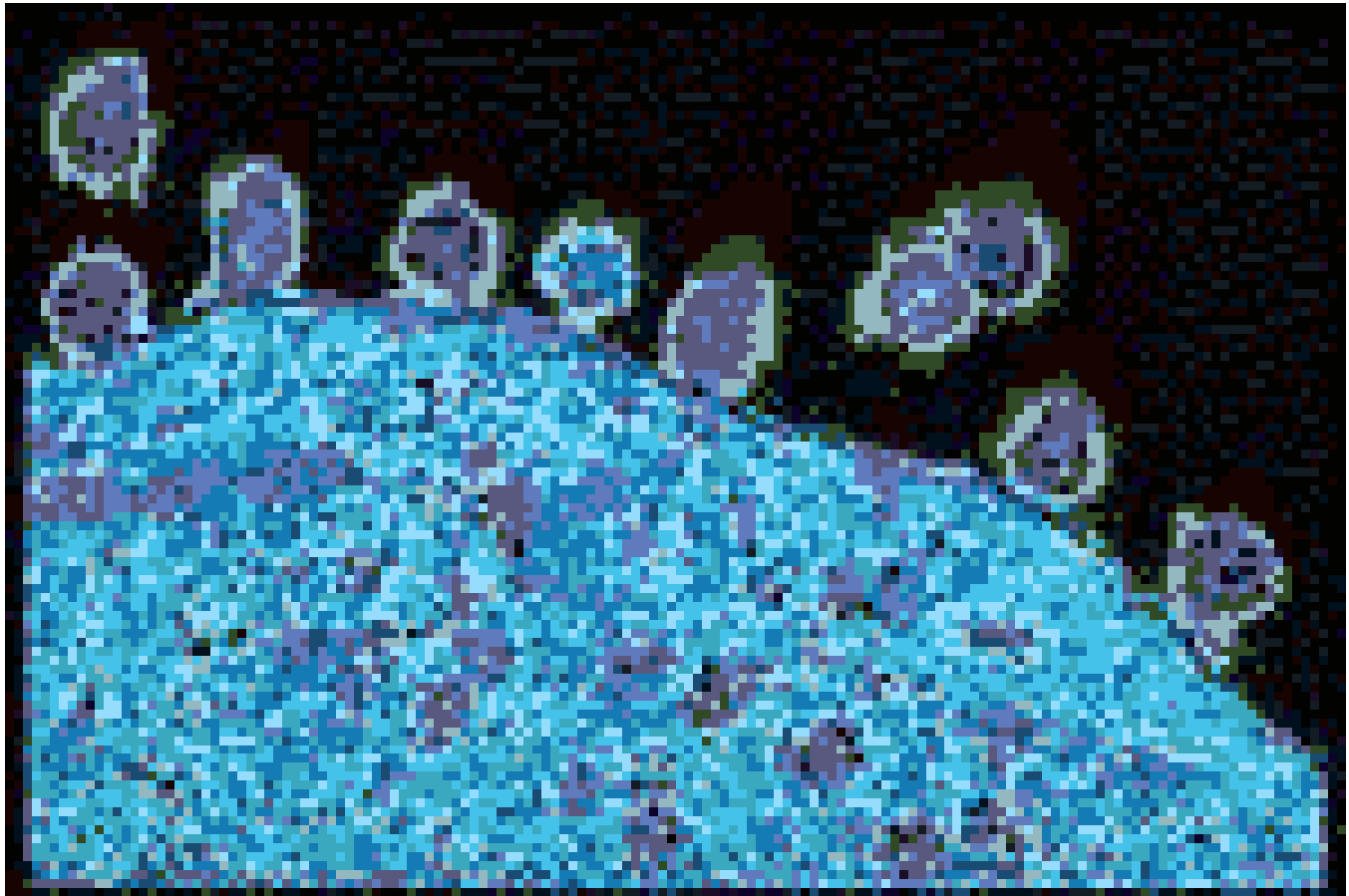
- RETROVIRUS
- LENTIVIRUS

# VIRAL LIFE CYCLE

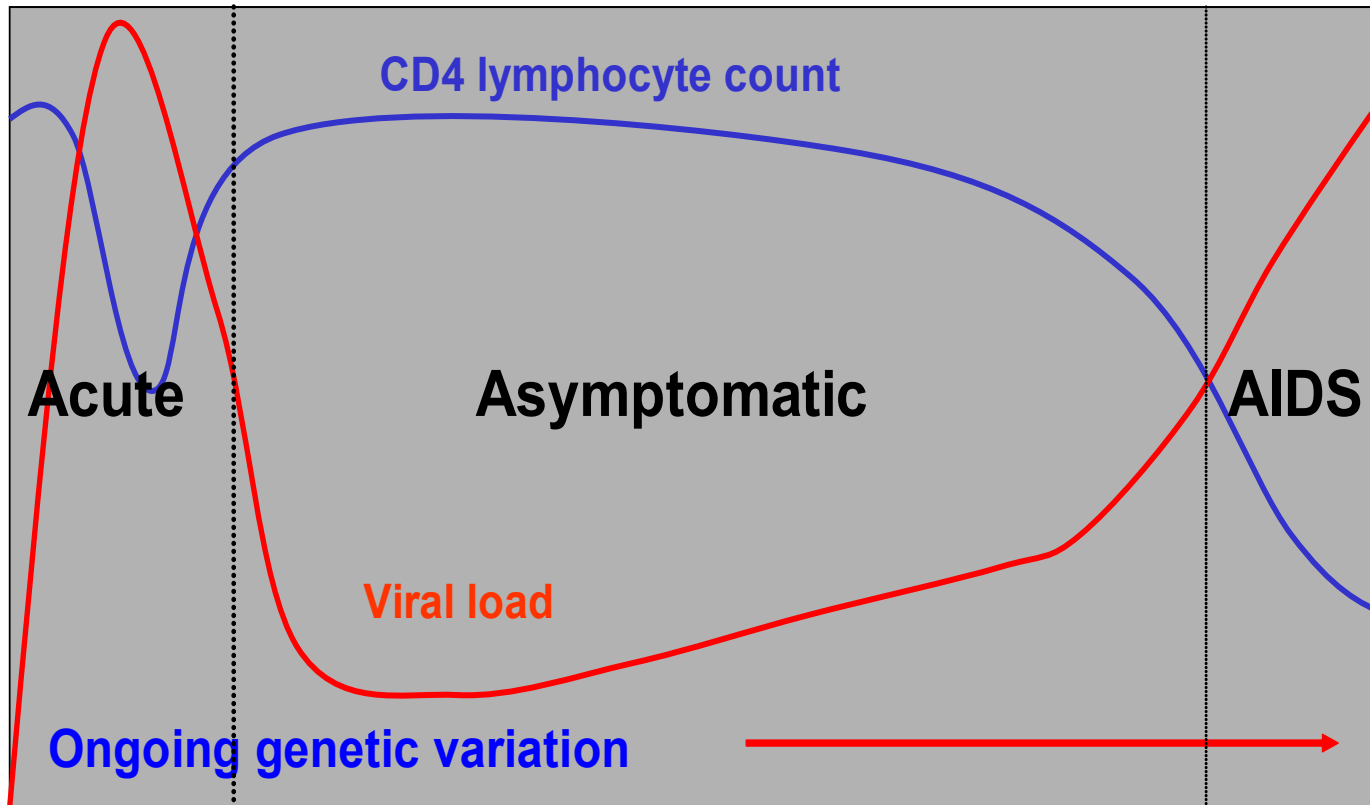


# VIRUS PARTICLES BUDDING FROM HUMAN CD4 CELL

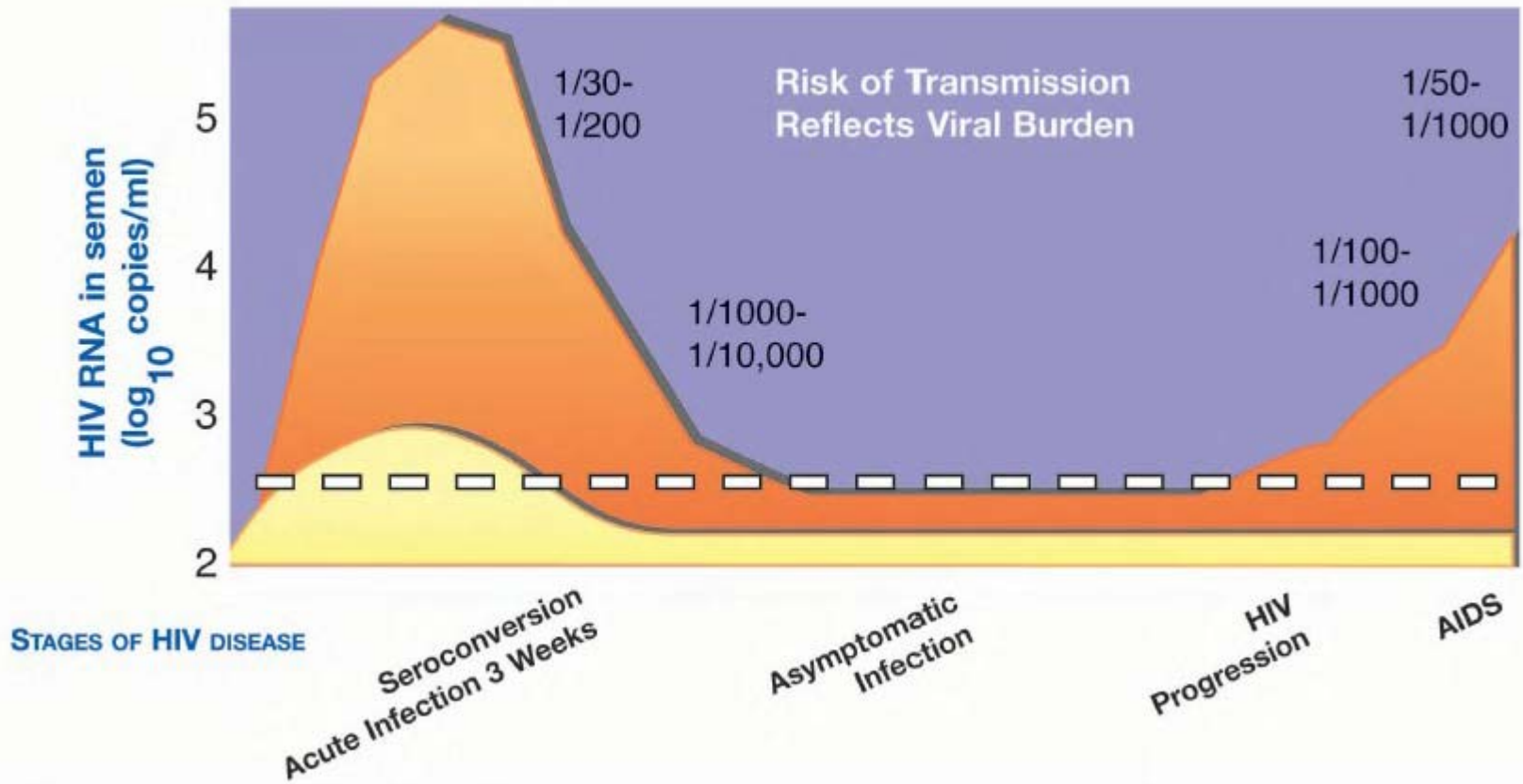
HIGH  
RATES OF  
VIRAL  
MUTATION



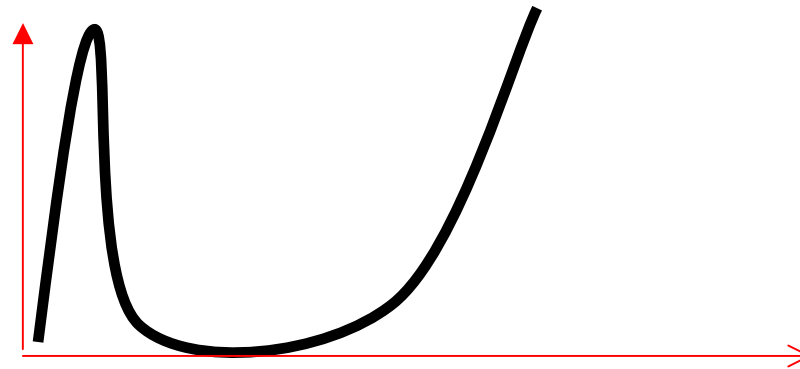
# Typical course of HIV infection and progression to AIDS



$10^8 - 10^9$  virions are produced and cleared every day  
 $2 \times 10^9$  CD4+ T cells are produced and destroyed every day

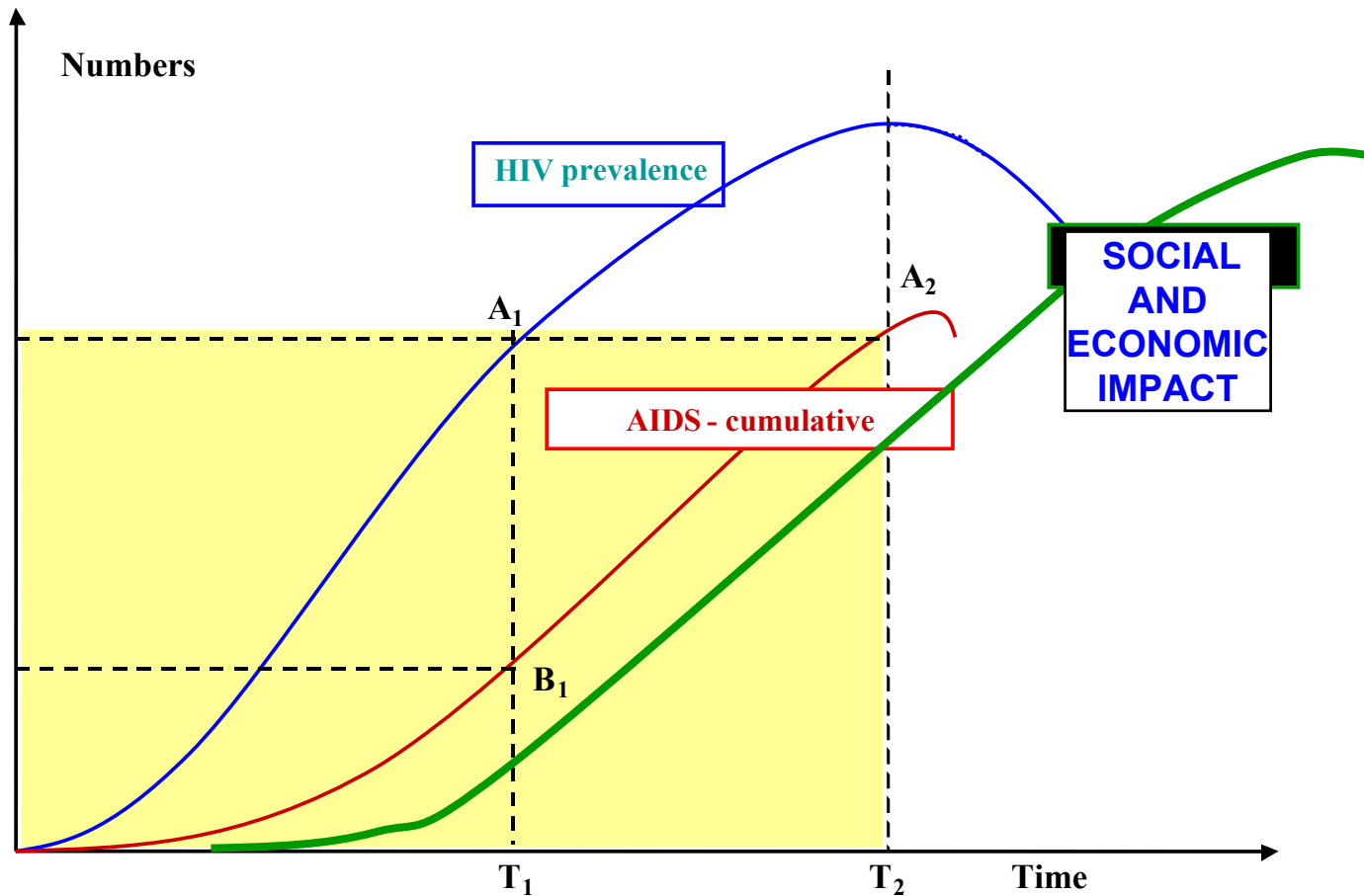


# THE VIRUS LIFE CYCLE

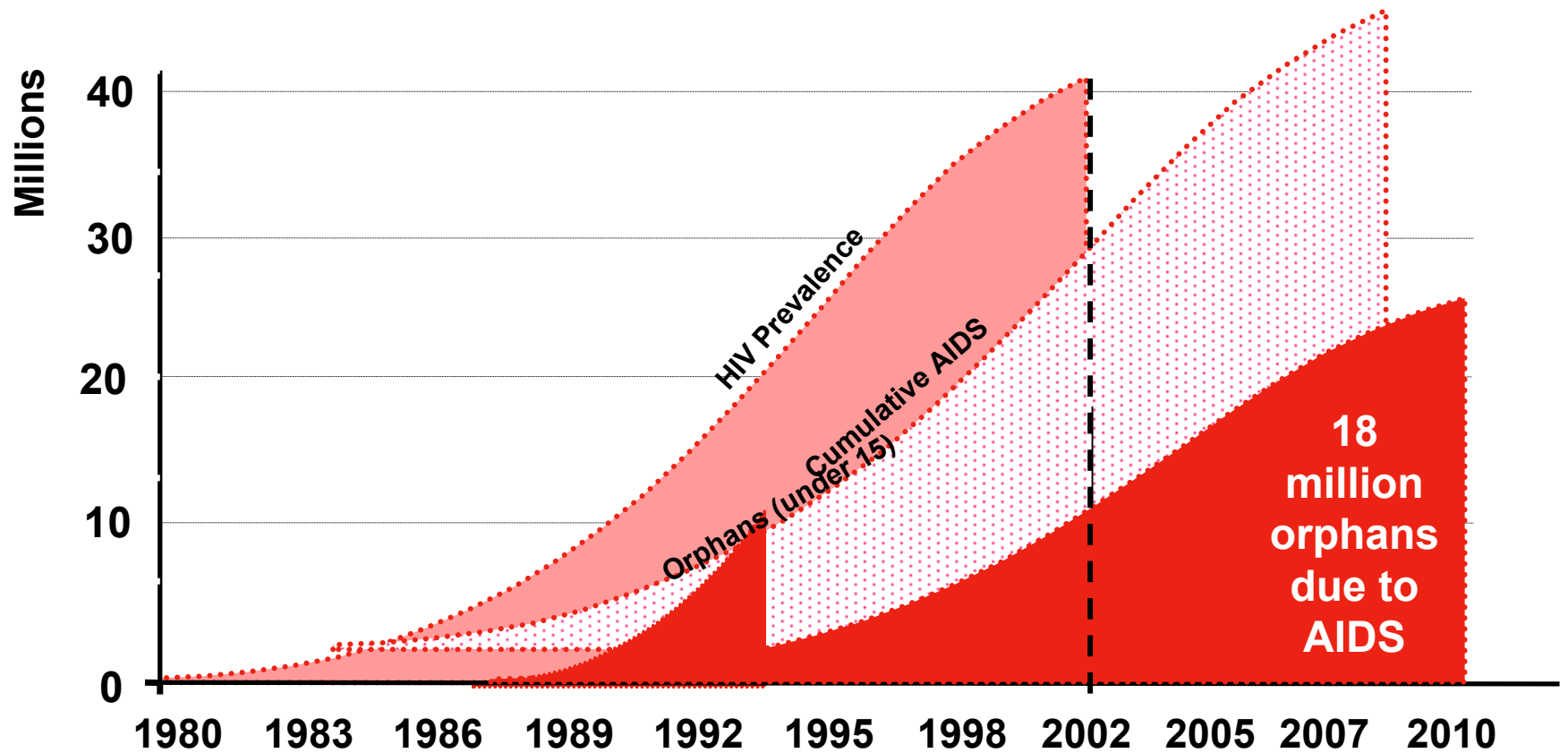


8-9 YEARS MEAN PROGRESSION

# Epidemic Curves: HIV, AIDS & Orphans



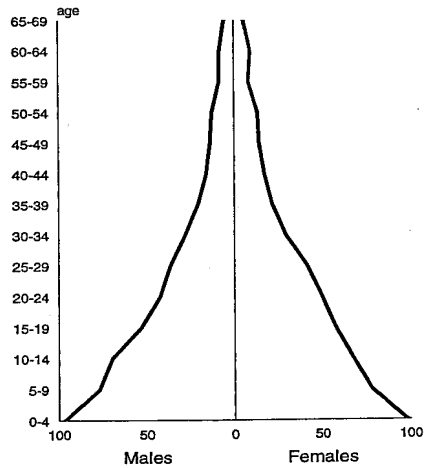
# Epidemic curves, HIV, AIDS & orphans



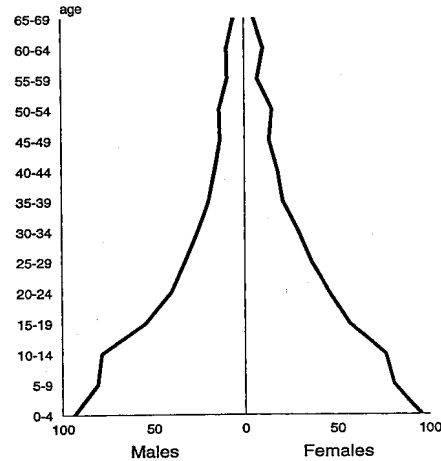
Source: UNAIDS/UNICEF, 2003, adapted from Whiteside, A. and C. Sunter, 2000

# UGANDA – HISTORY

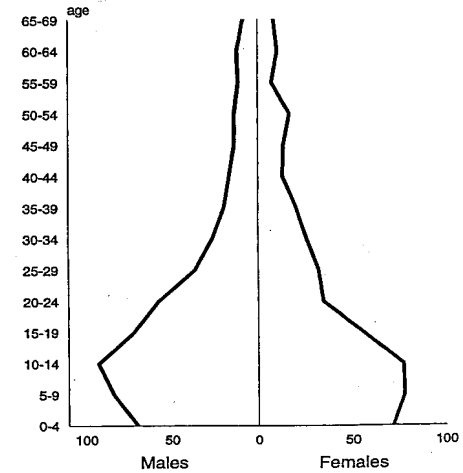
a. UGANDA



b. RAKAI District level

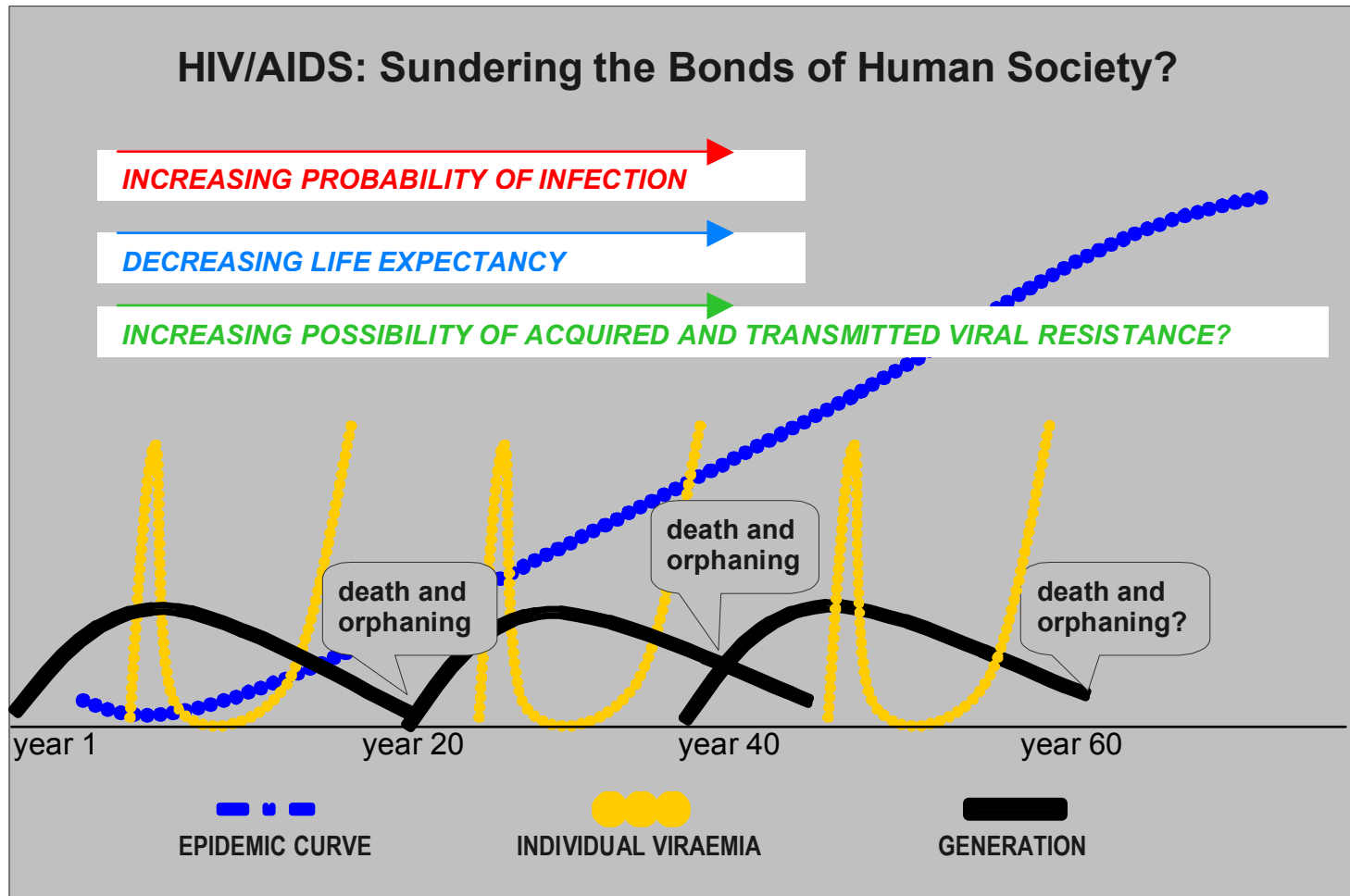


d. RAKAI Parish level





# HIV/AIDS: SUNDERING THE BONDS OF HUMAN SOCIETY?



# THINKING ABOUT IMPACT

COST, BENEFITS AND RETURNS  
TO INVESTMENT

# A STUDY OF COST: Fox et al, 2004

- **The Impact of HIV/AIDS on Labor Productivity in Kenya**
- Matthew P. Fox, Sydney Rosen, William B. MacLeod, Monique Wasunna, Margaret Bii, Ginamarie Foglia, Jonathon L. Simon
- J. Tropical Medicine and Int. Health,  
March 2004 Vol 9 No 3

# Study goals

- **To estimate the impact of HIV/AIDS on individual labor productivity during disease progression.**
- Retrospective cohort study of productivity and attendance of tea estate workers who died of AIDS-related causes between 1997 and 2002 in western Kenya.
- Compared daily output in kilograms of tea leaves plucked, use of paid and unpaid leave, and assignment to less strenuous tasks by 54 workers who died compared to performance of comparison workers, matched on time and tea field
- Used longitudinal regression techniques

# Conclusions

- This study interesting because provides empirical estimates of the impact of HIV/AIDS on labor productivity.
- Workers often bring unrecorded “helpers,” actual differences may be greater than shown in company records
- Decreased attendance and output may put sick workers in jeopardy of losing their jobs
- Decreased attendance imposes financial burdens on employers.

# AIDS EPIDEMIC COSTS

- Even at “only” 6 per cent of the population, HIV/AIDS:
  - is taking its toll on commercial agriculture in Kenya
  - affecting the bottom line of the tea company
  - affecting the incomes of workers and the foreign exchange earnings of the country
- **This is indeed serious economic impact and cost**

# BUT... who and what does it cost?

- tea pluckers work six days a week
- they are expected to pluck 33.2 kg of tea per day although most do rather better than this,
- they are eligible for paid sick leave and annual leave and receive a service gratuity upon reaching *ten years* of service;
- they do not receive retirement, death, or disability benefits;
- in 2003 the monthly income of a tea plucker in the commercial sector in Kenya was around US\$48 – an annual income of US\$570.
- So here we have people working for low incomes with little in the way of social support beyond their households and communities until they have worked for *ten years* for same company.
- What of their “social support”?

# THE PRICE OF LABOUR

# The “price” of labour?

- This is of course set by the market – although in this case it is “union negotiated rate” of Ksh 4.09/kg
- But that is not the whole story.
- Workers on tea plantations in Kenya support their dependents and are supported by them.
- In other words, their presence in the tea estate is underpinned by processes of *social and economic reproduction* elsewhere – creating and maintaining social and economic structures
- A man or woman’s domestic partner may work in subsistence agriculture to provide food for themselves and for the couple’s children, to feed the children while they go to school, to contribute to the local community’s collective life.
- All this while the waged partner works away for a wage that no doubt contributes something to the household
- Subsistence sector can also be seen as a subsidy to the commercial sector by the non-wage sector.

# Socially Reproductive Labour

What does it cost? What is it “worth”

- When the function of the non-wage sector is reduced because of disease, a whole series of “costs” accrue to Kenyan society
- These are not easily calculated or at all
- They include:
  - the costs of dying,
  - the costs of orphan care
  - in the longer term the costs to communities and to the country of having large numbers of poorly socialised people who have grown up as orphans.

# CONNECTING SOME IDEAS

AREAS OF COST WE EXCLUDE  
AND/OR DO NOT UNDERSTAND

# UNDERSTANDING COST AND VALUE

- HEDONIC LOSS
- RELATIONAL GOODS
- STRUCTURES OF SOCIAL REPRODUCTION
- **IT IS HARD FOR STANDARD ECONOMIC ANALYSIS TO ENGAGE WITH THESE QUESTIONS BUT THE HIV/AIDS EPIDEMIC IS AN ILLUSTRATION OF THEIR IMPORTANCE**

# STANDARD ECONOMIC ANALYSES

- LARGELY EXCLUDE NON-MONEY ECONOMY – FEMALE UNPAID FARM WORK, DOMESTIC LABOUR, PLUS OTHER “NON-ECONOMIC” WORK OF SOCIAL REPRODUCTION.
- THUS PROVIDES A LIMITED VIEW WHEN ECONOMIC MODELS STATE THAT AIDS RELATED REDUCTION IN GDP PER IS IN THE RANGE 1-2% PER YEAR

# QUESTIONS

- When we say an event has a social and economic “impact” what do we mean?
- How and whether to include “hedonic” costs?
- If there is an “impact” how do we measure it? Over what period? How broadly?
- Whether and how innovative conceptual tools can be developed to identify and describe the costs of such long wave events?



# 1. Loss of Happiness

- Emotional Trauma: what does it cost?
- Over what time period?

# HAPPINESS

- Subjective measure – moves away from “utility” constructed in terms of market prices
- DALYS - provides a notional estimate of the aggregate years of healthy life lost to the disease; it provides no idea of the extent to which these deaths and illness have effects beyond those captured by such proxy methods for estimating the *productivity* of a healthy life
- *Individual focus of standard approaches ensure their very limited applicability to understanding the costs accruing as a result of an HIV/AIDS epidemic.*

- Frey and Stutzer, Happiness and Economics, Princeton UP, 2002
- Richard Layard's recent book: Happiness: lessons from a new science, Penguin, 2005
- These are about "hedonic" loss

## 2. RELATIONAL GOODS

- Titmuss – The Gift Relationship
- Bruni and Sugden – Relational goods
- Looks at relationships as “goods”
- Implies considering lost relationships as “costs”
- But “cost” may not be the right concept – may want to think about idea of loss of “value” and loss of “structures”

# 3. SOCIAL REPRODUCTION

- Examples: choirmaster, pastor and grandmother, water committee &c
- Social and economic life depends on unpaid socially reproductive labour
- Each paid worker supported by this
- Problem: how to describe and measure this – time budgets might be one way
- Description of “structures” another approach – not measured/measurable

# LINKS TO KEY OPERATIONAL QUESTION

**ENGAGES WITH THE NATIONAL AND GLOBAL RATIONING ISSUE – as for example with ARVs**

**How do we assess the returns to use of resources for ARVs?**

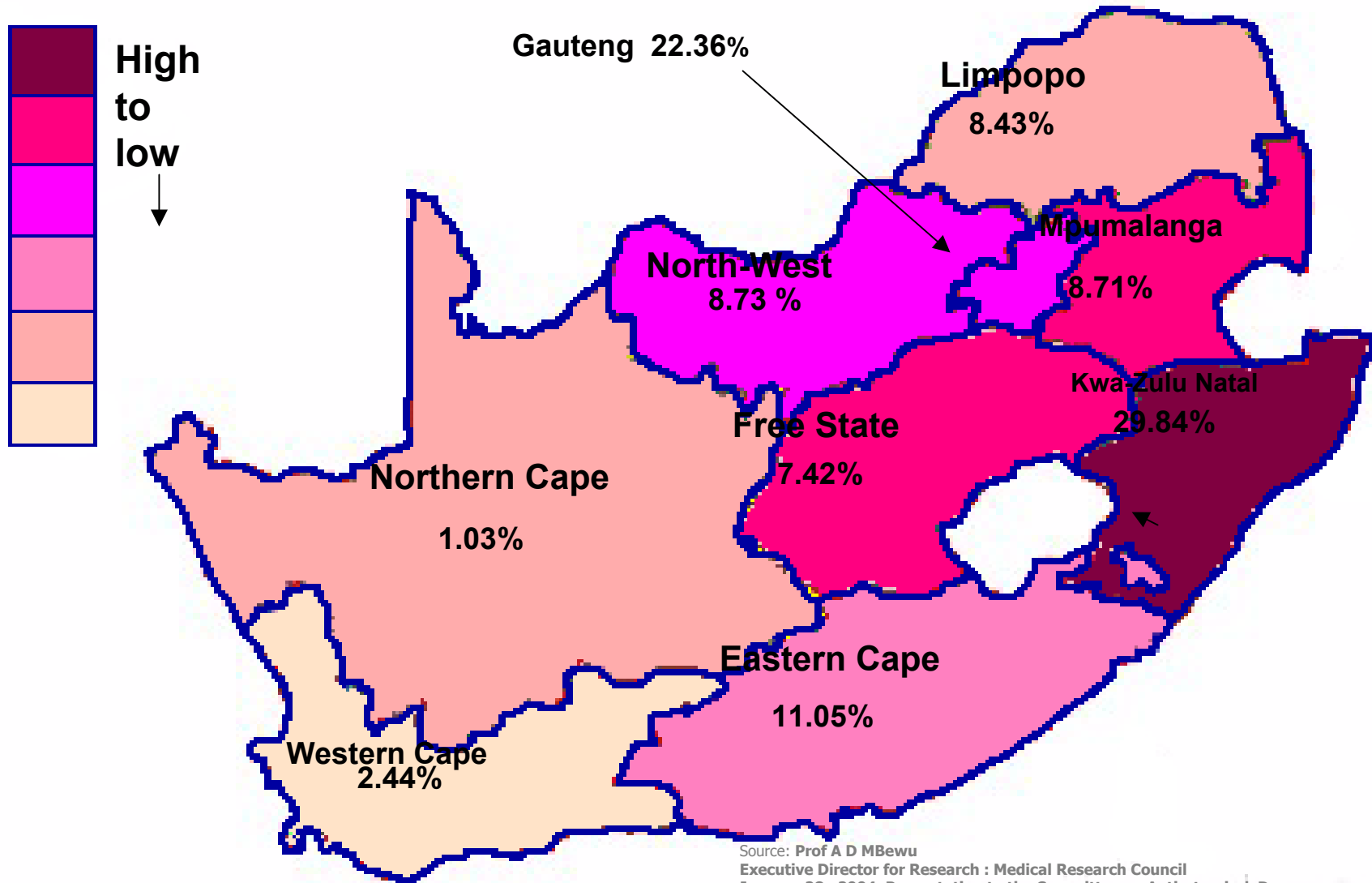
**Argument of diversion of resources to HIV/AIDS from engagement with other health issues**

# RATIONING ARVS

# “Who counts and what should we count?”

- These questions go to the root of assumptions made in standard economic estimation of costs and returns to investment in ARV provision
- Is this about *COST* as measured by neo-classical economics, about marketed output?
- or about *VALUE* of social goods more generally?
- *We need to consider hedonic and social reproductive costs and benefits*

# Percentage of Total Number of Patients Eligible For Antiretroviral Drug therapy in South Africa – by Province



Source: Prof A D MBewu  
Executive Director for Research : Medical Research Council  
January 28, 2004, Presentation to the Committee on Antiretroviral Drug Use in Resource-Constrained Settings Board on Global Health, Institute of Medicine

...in the end this is about the  
valuation of other peoples'  
lives, communities and futures



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