Incentivising behaviour change: an overview

Charlotte Watts, Meghna Ranganathan, Anna Vassall, Fern Terris-Prestholt

Department of Global Health and Development
Faculty of Public Health and Policy
London School of Hygiene and Tropical Medicine

same
HIV modelling & economics

Background

- Conditional cash transfer (CCT) programs used widely to provide cash to poor households in exchange for active participation in educational and health care services
- In 2007 29 developing countries had some form of CCT programme in place
- Growing evidence that even small financial incentives can influence uptake of services and health behaviours
- Model not commonly considered in HIV prevention
- Increasing interest in using incentive based interventions to influence sexual and reproductive health behaviours

Medlin and Dewalque D, 2008, Adato and Bassett, 2008, Baird et al 2007

same
HIV modelling & economics

Models of incentives for behaviour change

- **High income countries**
  - **Direct incentive payments** to individuals for reduction in high-risk behaviours such as tobacco, food, alcohol and use of illegal drugs by health service providers
  - **Contingency management** approaches, where access to services dependent upon meeting specified requirements
- **Low and middle income countries**
  - **Conditional cash transfers** - monthly subsidies to poor families (mostly paid to mothers, for families with children) conditional on defined actions, such as taking children for immunizations, keeping them in school
  - **Voucher programmes** - Demand-side subsidy that recipient can use as part or full-payment for a product or service from identified providers

Could CCTs reduce HIV risk?

- Reward safer behaviours
- Bring rewards of risk reduction closer to present, rather than avoiding AIDS many years in future
- Benefits of increased service use
  - HIV testing or STI treatment services
  - Enrolment in education – knowledge & self-efficacy, delay onset of sex, change sexual networks, increase opportunity cost of pregnancy
- Reduce poverty, and potentially impact on levels of sex in exchange for resource

Do incentive based interventions work for HIV?

Using CCT to increase demand to learn HIV status

Intervention	Location	Study Pop	Design
CCT to learn HIV status after testing	Malawi	2,812 women and men in rural Malawi	RCT – individuals randomly assigned voucher payments (between $0 and $3) to be paid when test results made available **Primary outcome**: receive test results

- Without any incentive, 34% learned their HIV results.
- Even smallest incentive doubled the number of people who returned
- Positive linear effect with level of incentive

Thornton, American Economic Review, 2008

same
HIV modelling & economics

Using CCT to maintain HIV status

Intervention	Location	Study Pop	Design
CCT to maintain HIV status	Malawi	1,300 women and men in rural Malawi	RCT –voucher amounts for maintenance of HIV-status for 1 year

- Rewards ranged from zero to 4 months wage
- No effect on HIV status or reported sexual behavior during study
- Following intervention, men with incentive 8.5% more likely and women 7.5% less likely to engage in risky sex

Kohler, Thornton/NIH unpublished study

same
HIV modelling & economics

Schooling, Income, and HIV Risk (SIHR) intervention to encourage girls to stay in or return to school

Intervention	Location	Study Pop	Design
Zomba cash transfer program that provides CCT to current school girls and recent drop outs - average $10/month for 10 months) + payment of school fees - 30% payment to girls, 70% parents	Zomba, Malawi	3,796 unmarried girls aged 13 – 22 from 176 enumeration areas - 15% dropped out at baseline	Jan 2008 – Dec 2009 CRCT. Randomisation of payment amount to parents ($4-10) and girls ($1-5) Some offers conditional, some unconditional ITT analysis Primary endpoint: HIV; Secondary endpoint: HSV-2, reported sexual behaviors

18 months after program implementation:

- HIV prevalence 60% lower than control (1.2% vs. 3.0%).
- HSV-2 prevalence 75% lower (0.7% vs. 3.0%).
- No significant differences between those offered conditional and unconditional payments

same HIV modelling & economics

Baird, Chairwa, McIntost, Ozler, 2009, WB Press release Vienna

Alternative interventions: Intervention for Micro-finance And Gender Equity (IMAGE intervention)

Intervention	Location	Study Pop	Design
Micro-finance programme + participatory training in gender, violence and HIV	Limpopo Province, South Africa	860 women enrolled 1,750 loans disbursed Total value USD $ 290 000 Repayment rates 99.7%	**RCT** 4 intervention & 4 control outcomes **Primary outcomes** Past year experience of intimate partner violence

Among participants

- ❑ Past year experience of violence reduced by 55%
- ❑ Significant reductions in hh poverty
- ❑ Improved HIV communication
- ❑ $43 per client in trial / $13 per client at scale up

Among younger women participants (18 – 35)

64% higher uptake HIV testing

25% reported unprotected sex

Pronyk et al The Lancet 2004, Pronyk et al AIDS 2008

same

HIV modelling & economics

○

Contrasting perspectives on incentives

Potential concerns	Negative view	Positive view
Social engineering?	paying people to act against their wishes	offered to achieve outcomes most people desire
Paternalistic?	undermines individual autonomy	facilitates autonomy when makes it more likely that people act in line with preferences
Unfair?	selective poverty alleviation	potentially potent means of changing behaviour in most socially deprived, reducing health inequalities
Inefficient?	poor use of resources when many competing demands	potentially large health benefits from modest investment
Disempowering?	top down model of intervention	financial benefits lead to greater empowerment
Sustainability?	continued funding requirements, creating dependency	prevention reduces downstream costs

HIV modellin

Conclusion

- Promising findings on CCTs announced by World Bank in Vienna
- Important ongoing RCTs will add to evidence base
- Ongoing questions
  - Importance of conditionality in changing behaviour
  - CCTs versus other forms of economic intervention to give girls economic opportunities
  - CCTs versus supply side investments – eg health, education
- CCT design issues
  - Trade offs in methods of targeting
  - Influence of level of incentives
  - Factors that influence response and encourage short term / one off action vs sustained behaviour change
- Research questions
  - Cost-effectiveness and financial sustainability
  - Pathways of change
  - Capture perverse incentives and unintended consequences

same
HIV modelling & economics

Lagarde, Haines & Palmer 2007, Gertler 2007, Martineau, Ascroft & Oliver 2009