From Research to Practice

Training in Sexual Health Research

Geneva 2006

The Effectiveness of Interventions to Achieve the Global Goals on HIV/AIDS among Young People in Low and Middle Income Countries

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Overview of the Presentation

- Setting the scene
- Reviewing the evidence: what we have done and how
- The findings: Steady, Ready, GO!
- Challenges and conclusions

A partnership effort

World Health Organization

London School of Hygiene and Tropical Medicine

Joint United Nations Programme on HIV/AIDS
UNAIDS
UNICEF • UNDP • UNFPA • UNDCP
ILO • UNESCO • WHO • WORLD BANK

unicef
United Nations Children's Fund

UNFPA

And others!

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Setting the scene

- 50% of HIV transmission is in young people (10-24 years) … 5-6,000 become infected every day … a priority in generalized and concentrated epidemics
- We need to act **NOW** if we want to prevent the transmission of HIV
- We know that many things need to be done, but countries will not be able to implement every "*good idea*"
- Many things will influence decisions about priorities for action: evidence of effectiveness needs to be one of them!

Choices should be evidence-informed, but …

- It is complicated because we need evidence from multiple interventions in multiple settings
- Evidence-base often fragile, more evidence available for some interventions than others, and is mostly from the North
- It is often unclear what is meant by "evidence": RCT, "quasi-experimental", before/after, cross-sectional, best practice, anecdote …?
- Need to be more transparent and consistent about how we decide if there is/is not sufficient evidence to support wide-spread implementation of interventions

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Opportunities and urgency

- Clarity about the main settings through which we can reach young people (schools, health services, communities, media, outreach to vulnerable groups, the political environment)
- Although the evidence remains weak, there **is** a growing research base, including research from low and middle income countries
- Growing politicization of interventions for prevention among young people eg. abstinence (and ignorance!) until marriage
- Global goals that provide vision and focus:
  - decreasing prevalence
  - increasing access to core interventions
  - decreasing vulnerability

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Global goals and targets

- **The UN General Assembly Special Session on Children**

  provides the broader context
  - develop and implement national health policies and programmes for adolescents, including goals and indicators, to promote their physical and mental health

- **The MDGs on HIV/AIDS**

  gets attention from the "masters of the universe"
  - Have halted by 2015 and begun to reverse the spread of HIV/AIDS
  - HIV prevalence in pregnant 15-24 year olds an explicit indicator

- **The UN General Assembly Special Session on HIV/AIDS**

  moves goals from the aspirational to the operational
  - By 2005, ensure that at least 90% (& by 2010…95%) of young people…have access to the … **information** … **skills** … and **services** they need…to reduce their vulnerability to HIV…
  - By 2003, develop and/or strengthen strategies, policies and programmes which … reduce the **vulnerability** of children and young people …
  - By 2005… HIV **prevalence** among young people (15-24years) reduced by 25% in the most affected countries … by 2010 … reduce prevalence by 25% globally

Objectives of this initiative

- **To inform the choices of policy makers and programmers about interventions to achieve the global goals on HIV and young people**
- **To provide a comprehensive review of the evidence for effectiveness of interventions to prevent HIV among young people in developing countries**
- **To clarify our understanding about "evidence", and develop a standard methodology for reviewing different types of interventions in different settings:**
  - **Schools**
  - **Health services**
  - **Mass media**
  - **Geographically-defined communities**
  - **Young people most at risk**

Caveats

- This is not the final answer … a contribution to help develop how we think about evidence, and to be clear about what we know and what we don't know at this point in time
- Very variable evidence-base for different settings
- Reporting bias
- Did not deal with:
  - structural interventions to decrease vulnerability (there is little evidence except from anecdote)
  - interventions in the political environment (eg. policies)
  - all settings (eg. prisons, work)
  - all vulnerable groups at high risk of HIV
  - care, support and treatment

Process

- May 2004 *Talloires*: a meeting to bring together policy makers, programmers and researchers to review initial background papers and brainstorm
  - Redrafting of papers and preparation of additional papers
  - Presentations in a number of fora: *Steady, Ready, GO!* resonates!
- March 2005 *Gex*: a peer review meeting with the authors of all the papers and a few external advisers
- June 2005 *Chavannes*: meeting of the editors plus an editorial advisory group to develop conclusions and recommendations
- January 2006: Finalize papers and submit for peer reviewed, prior to publication as a WHO, UNICEF, UNFPA, UNAIDS Technical Report Series
- July 2006: publication
- August 2006: Launch at IAC Toronto … get young people into the scientific track!

Papers to be Included in the TRS

Section 1: Background

- Preface
- Introduction
- Overview of HIV among young people
- Overview of prevention interventions

Section 2: Systematic Reviews

Methodology: What do we understand by evidence?

Reviews of interventions in the following settings:

- Schools
- Health services
- Geographically-defined Communities
- Vulnerable groups most at risk of HIV
- Mass media

Section 3: Conclusions and recommendations

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Methodology

1. Select the main settings where interventions are provided for young people
2. Categorise interventions in these settings into *types*, based on the choices policy makers and programmers need to make
3. Assess the strength of evidence of effectiveness that would be needed to recommend each type of intervention for widespread implementation (the "*evidence threshold needed*")
4. For each setting, assess the strength of the empirical evidence available for each type of intervention in terms of specific outcomes, grading the evidence using standard criteria
5. Decide if the evidence threshold needed to recommend widespread implementation for each type of intervention has been met?
   - **Yes fully:** **GO!**
   - **Partially:** **Ready**
   - **No, but encouraging:** **Steady**
   - **Evidence of lack of effectiveness or harm:** **Do not go**

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Types of interventions

Example: Geographically-defined communities:

1. **Targeting youth; delivered through existing Youth Service Organisation (YSO) or Youth Centre (YC)**
2. **Targeting youth; delivered through new systems or structures**
3. **Community-wide; delivered through family networks**
4. **Community-wide; delivered through community activities**

The *threshold of evidence needed*

Different interventions need different thresholds of evidence … this depends on:

- **Feasibility (including cost)**
- **Potential for adverse outcomes**
- **Acceptability**
- **Potential size of the effect**
- **Other health or social benefits**

Strength of evidence needed

Example: Interventions for geographically defined communities: working through youth-serving organizations

Feasibility	Lack of potential for adverse outcomes	Acceptability	Potential size of effect	Other health or social benefits	Strength of Evidence Needed
+++	++	+++	++	++	Low

Strength of evidence needed

Example: Interventions for young people most at risk that include information and services, through facilities and outreach

Feasibility	Lack of potential for adverse outcomes	Acceptability	Potential size of effect	Other health or social benefits	Strength of Evidence Needed
+	-	+	+++	++	Medium

Assessing the strength of the available evidence for different interventions … need to take consider:

- **Quality of the intervention**
- **Clarity about outcomes and their measurement**
- **Relevance of the context**
- **Quality of the evaluation methodology**
- **Different types of evidence deserve different weights: *a hierarchy of evidence***

A hierarchy of evidence

Informed judgement:	**Key informant interviews**
"Adequacy":	**The expected changes occurred** **(eg. before and after studies)**
"Plausibility":	**Adequacy +** **The changes were greater than could be explained by any other external influences** **(eg. control group included)**
"Probability":	**Plausibility +** **Changes were unlikely to have occurred by chance** **(eg. RCT)**

(***after Habicht et al 1999***)

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Evidence required to recommend widespread implementation

Strength of evidence required	Characteristics
Low	Need positive evidence from well-conducted adequacy studies, and at least some positive evidence from plausibility studies
Medium	Need positive evidence from well-conducted plausibility studies, at a minimum
High	Need positive evidence from well conducted RCTs or quasi-experimental studies

Recommendation for each type of intervention

Go!	**Evidence threshold met**
	Sufficient evidence to recommend widespread implementation on large scale now, with careful monitoring (coverage & quality… & cost)
Ready	**Evidence threshold partially met**
	Evidence suggests interventions are effective, but large-scale implementation must be accompanied by further evaluation to clarify impact and mechanisms
Steady	**Some encouraging evidence of effectiveness but this evidence is still weak**
	Evidence is promising, but further intervention development, pilot testing and evaluation urgently needed before they can move into the “ready” or the "do not go" categories
Do not go	**Strong enough evidence of lack of effectiveness or of harm**
	Not the way to go …

Schools-based Interventions
Types of Interventions & Strength of Evidence Needed to Recommend Widespread Implementation

Type	Curriculum-based	With characteristics	Adult-led +/- Peers, or Only Peers	Strength of Evidence Needed for defined threshold
1	√	√	Adult +/- Peers	Quasi-experimental or RCT
2	√	√	Only Peers	
3	√	x	Adult +/- Peers	
4	√	x	Only Peers	
5	x	x	Adult +/- Peers	
6	x	x	Only Peers	

Schools-based Interventions Results
Effects on reported sexual behaviours

Type of intervention	No. studies				Rec^{n}
	N	≥1 positive	No significant effect	≥1 negative	
1. Curriculum-based, with specified characteristics, Adult-led +/- Peers	13	11	2	0	Go!
2-6. Other types	9	4.5*	4	0.5*	Steady

* 1 study with both significant positive & negative effects on different behaviours

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Mass Media Interventions
Types of Interventions & Strength of Evidence Needed to Recommend Widespread Implementation

Intervention Type	Strength of Evidence Needed for defined threshold	Comment
1. Radio-only	Before-After +/or Intervention vs Comparison (Quasi-experimental)	Increasingly strong evidence needed as complexity & cost increases
2. Radio + other media (No TV)		
3. Radio + TV + other media		

Mass Media Interventions
Effects on reported sexual behaviours

Type of intervention	No. studies				Rec^{n}
	N*	≥1 positive	No significant effect	≥1 negative	
1. Radio-only	1	0	1	0	Steady
2. Radio + other media (No TV)	5	3	2	0	Go!
3. Radio + TV + other media	7	6	1	0	Go!

* 2 studies in the review did not measure any behaviours

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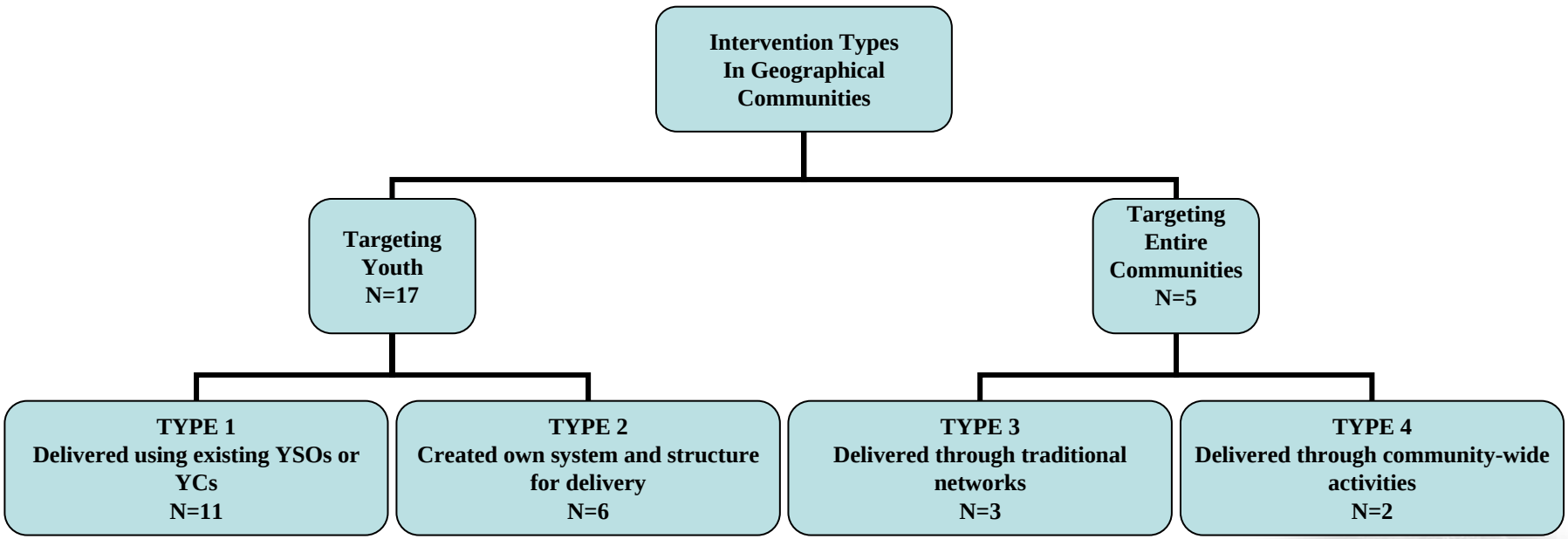
Geographically defined Communities

Types of Interventions



Interventions for geographically defined communities

Type of intervention	Number of studies				Rec^{n}
	N	Positive	No significant effect	Negative	
1 Targeting young people using existing youth service organizations and youth centres	16	7	8	1	Ready
2 Targeting young people through new systems and structures specially created	7	2	5		Steady
3 Community-wide interventions delivered through family networks	4	2	2		Steady
4 Community-wide interventions delivered through community activities	2	1	1		Steady

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Health Services

- We have a set of evidence-based interventions
  - **Information and counselling**
  - **Condoms**
  - **Harm reduction**
  - **Management of STIs**
  - **Testing/treatment of HIV/AIDS**
  - **Male circumcision (possibly)**
  - **Screening of blood transfusions**
  - **Post-exposure prophylaxis**
  - **ARVs for mother-to-child transmission**

Types of Health Service Interventions

Interventions in the health facility	Interventions outside the health facility		
	Interventions in the community, e.g. peer educators, community sensitization	Interventions with other sectors, e.g. schools, media	Interventions in the community and with other sectors
Training of service providers and clinic staff only	Type 1 (n=1)	Type 3 (n=1)	Type 5 (n=2)
Training of service providers and clinic staff plus interventions in the facility to make it more *adolescent friendly*	Type 2 (n=4)	Type 4 (n=0)	Type 6 (n=8)

Can we increase young people's use of services?

Interventions in the health facility	Interventions outside the health facility		
	Interventions in the community, e.g. peer educators, community sensitization	Interventions with other sectors, e.g. schools, media	Interventions in the community and with other sectors
Training of service providers and clinic staff only	Type 1 Steady/Don't go	Type 3 Steady/Don't go	Type 5 Steady/Don't go
Training of service providers and clinic staff plus interventions in the facility to make it more *adolescent friendly*	Type 2 GO!	Type 4 Steady/Don't go	Type 6 Ready

Young people most at risk of HIV

Intervention Type	CRITERIA						Threshold of evidence
	Feasibility	Lack of Potential for adverse outcomes	Acceptable for target group	Acceptable for community and policy makers	Potential size of effect	Other health or social benefits	
1. Outreach only Information only	++	+++	++	++	+	+	Medium
2. Outreach only Information and Services	+	++	++	-	++	++	High
3. Facility only Information and services	++	++	+++	+	++	++	Medium
4. Facility and Outreach Information and services	+	+	+++	-	+++	+++	High

Young people most at risk of HIV: Interpreting the results

- Very few studies available that focused on young injecting drug users, young sex workers, young men who have sex with men in LMI countries
- Young people represent a large proportion of the general population of IDUs, SWs and MSM, and there are more studies where the data are not disaggregated by age
- Therefore have strengthened the weak evidence base from studies explicitly targeting young people with the stronger evidence base for the general populations of groups most at risk
- Recommendation: **READY**

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Interventions that are *GO!*

Schools	■ Curriculum-based, skills-based sexual health education, led by adults +/- peers, with specific characteristics*
Health Services ONLY FOR THE ACCESS GOAL	■ Training of service providers and clinic staff, facility improvements, and actions in the community
Mass media	■ Sustained, multi-channel campaigns with specific characteristics*

*** Provided they follow best practice, both in terms of content and process**

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Interventions that are Ready

Health Services	Interventions that improve the "adolescent-friendliness" of clinics and service providers, include outreach into the community, and engage other sectors
Geographically defined communities	Interventions that explicitly target young people, and that are delivered through existing systems and structures
Young people most at risk	Interventions that provide information and services, through facilities and outreach

Challenges

- How to interpret the findings from studies that included multiple interventions (which is what we have been promoting!)?
- Often clearer about the "what?" than the "how?"
- Still lack evaluations of interventions among young people in LMICs, and many of poor quality
- Few rigorous studies looked at actions to create a favourable environment for intervention delivery (eg. the political environment)
- Linking the evidence base for YP/HIV with adolescent sexual and reproductive health and other health issues facing adolescents
- Costs?!
- Importance of context …
- Importance of structural interventions …
- Just because it hasn't been evaluated doesn't meant that it doesn't work!

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Implications for Action

- Focus on universal access to prevention, treatment and care!!
- The comprehensive and transparent approach, and SRG categorization of interventions resonates with policy makers and programmers
- Needs wide dissemination: provides guidance for policy and programme decisions makers about some interventions that should widely implemented, GO! with careful monitoring, and Ready with careful impact evaluation
- Provides a research agenda: moving Steady to Ready (or Do not go), and Ready to GO!

Conclusion

We have:

- Goals and targets
- Increasing funds in countries
- Increasing clarity about effective and promising interventions

We need:

- Much more evidence-informed action!