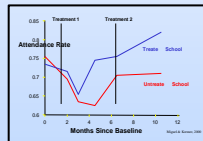
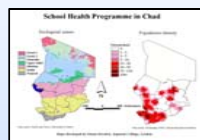
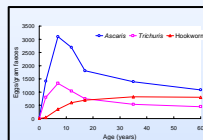
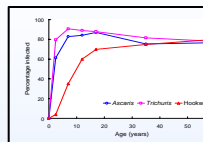




Cross-sectoral School-Based Health Programs



Don Bundy
Human Development Network
The World Bank

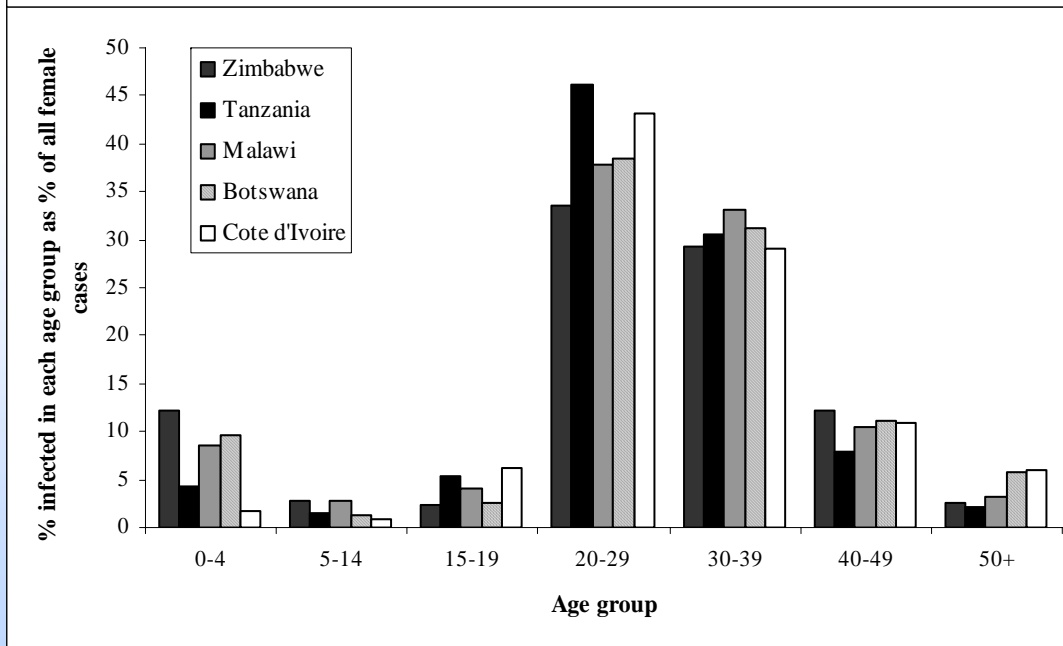
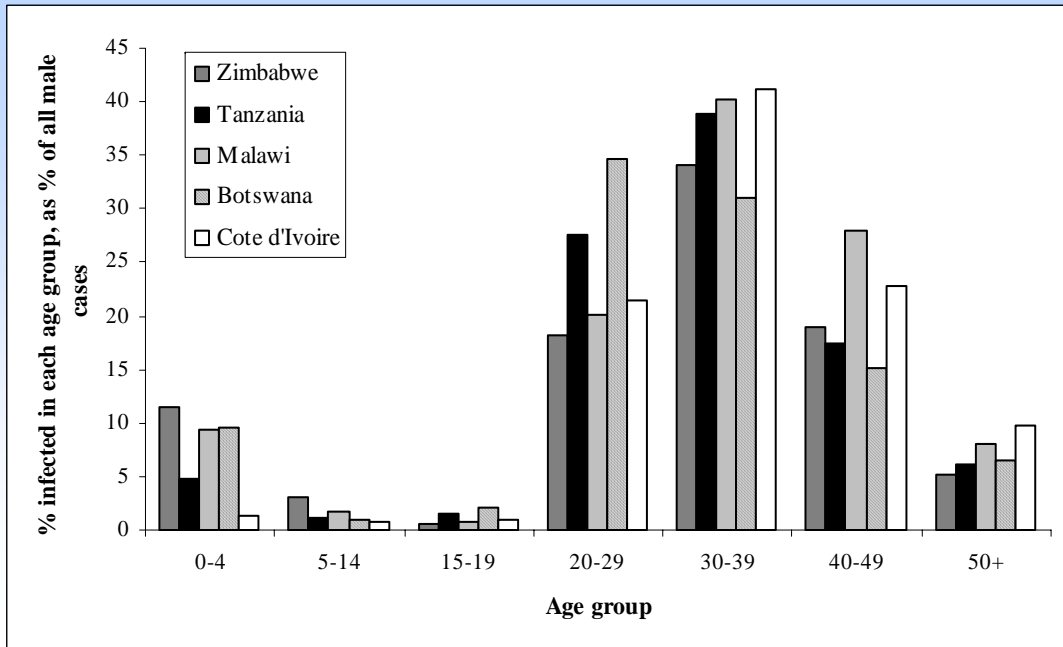
June 2008

Education and Health

Health and Nutrition factors positively associated with education level, and independent of SES

- **Family spacing**
 - **Fertility**
 - **Immunization rate**
 - **Nutritional status**
 - **Maternal mortality**
 - **Infant mortality**
 - **U5Mortality**
-

A Window of Hope ?



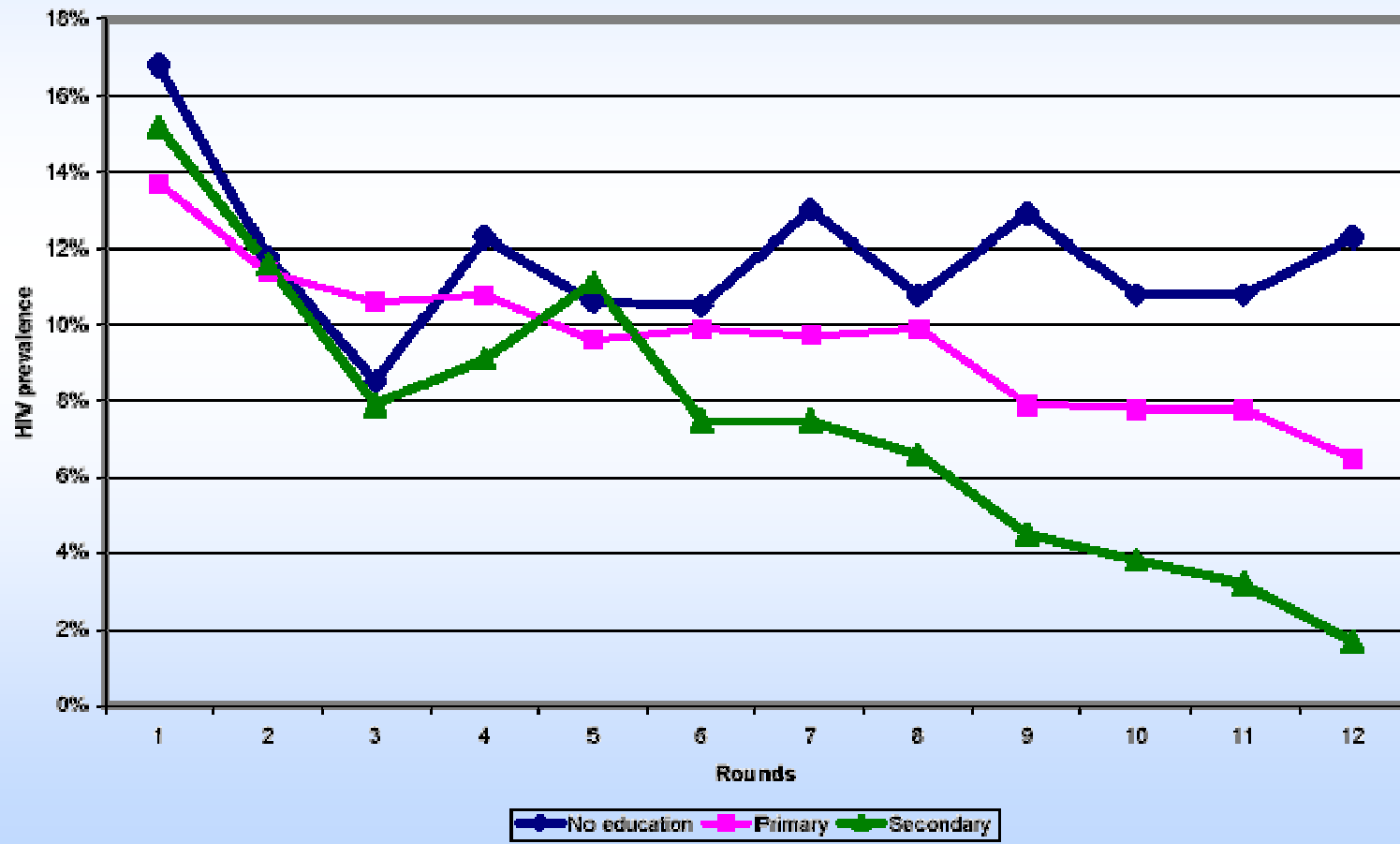
source: UNAIDS



Education and HIV/AIDS

Education a “social vaccine”?

HIV prevalence by education category, Rural Uganda, 1990-2001. Individuals aged 18-29.



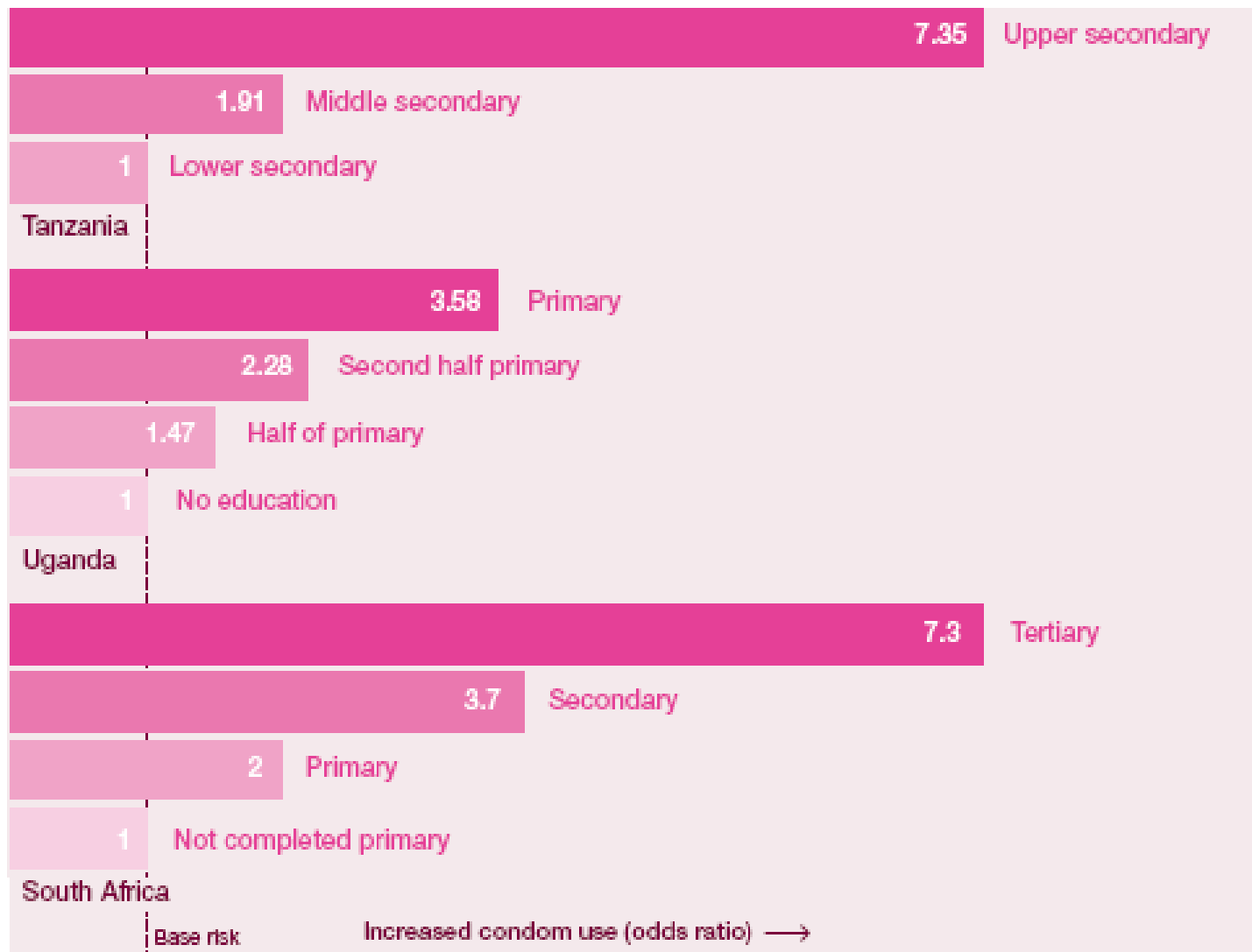
De Walque and J Whitworth, MRC Uganda (2002)

Figure 4 Changing association between education and risk of HIV infection over time from serial cross-sectional data collected in Uganda, Zambia, Tanzania and Malawi



GCE, *Learning to survive: How education for all would save millions of young from HIV/AIDS*. 2004, Global Campaign for Education: Brussels, Belgium.

Figure 8 Impact of girls' education on using condoms

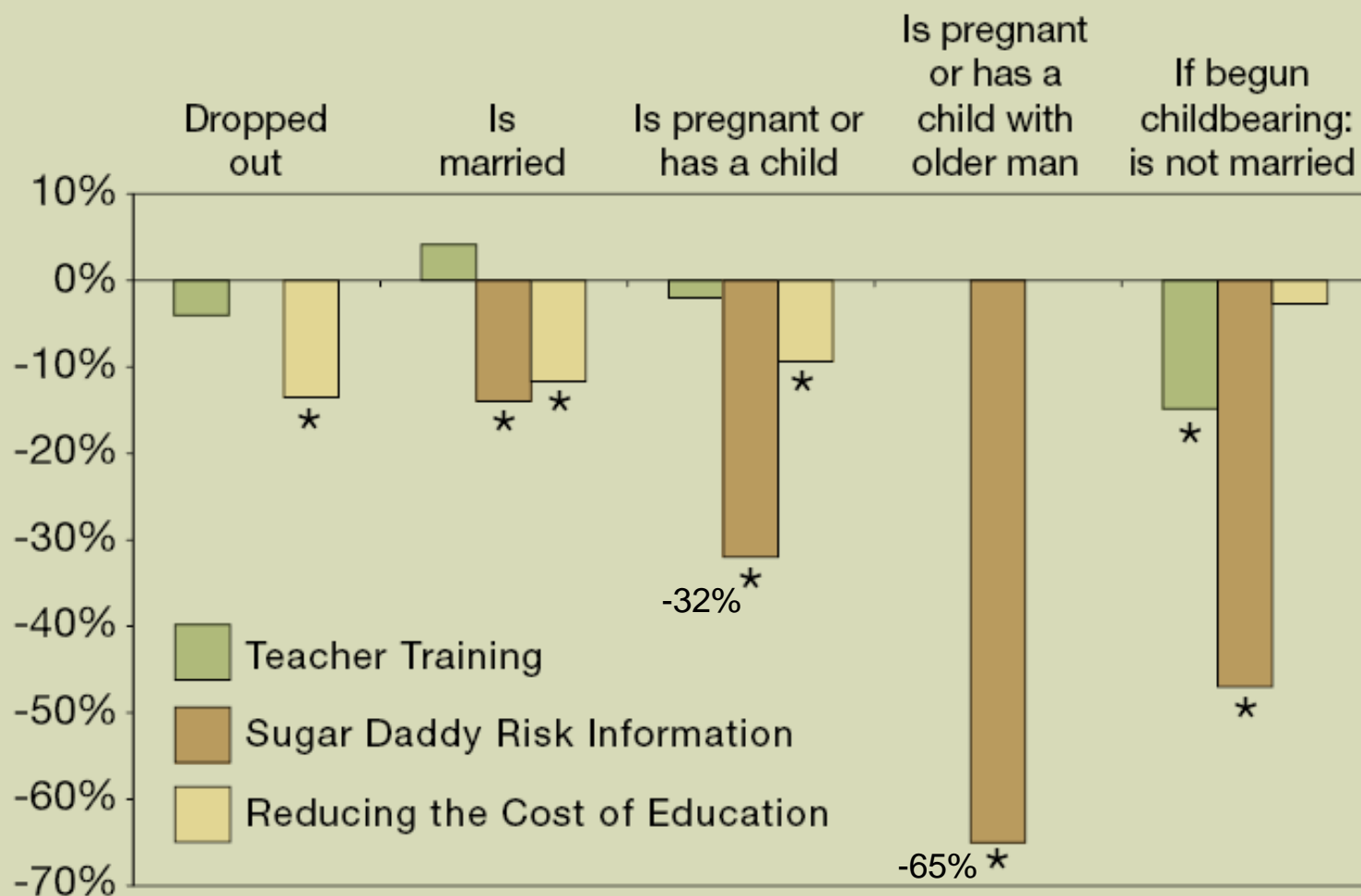


Effect of increasing education levels on HIV transmission

- The 36% of young adults in low-income countries without a complete primary education will experience 55% of new infections: 700,000 a year (Global Campaign for Education. 2004)
- One year of education leads to a 6.7% (Uganda) or 7% (South Africa) reduction in likelihood of acquiring infection. (De Walque, 2002; Barnighausen et al 2007).

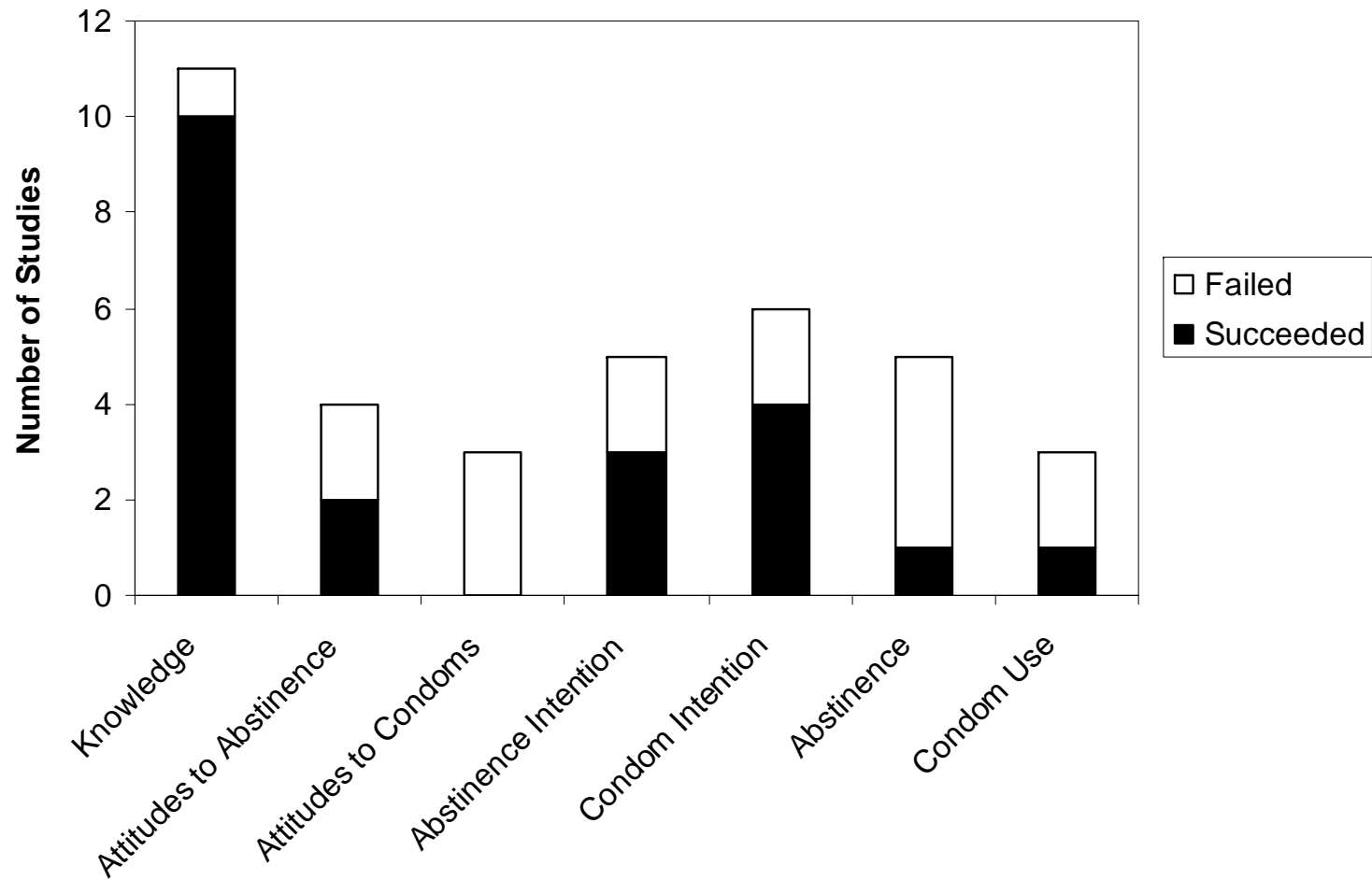
Impacts of Each Program on Girls' Behavior

(Percentage change relative to girls in comparison group)



*Indicates that the difference with the comparison group is significant at 10%

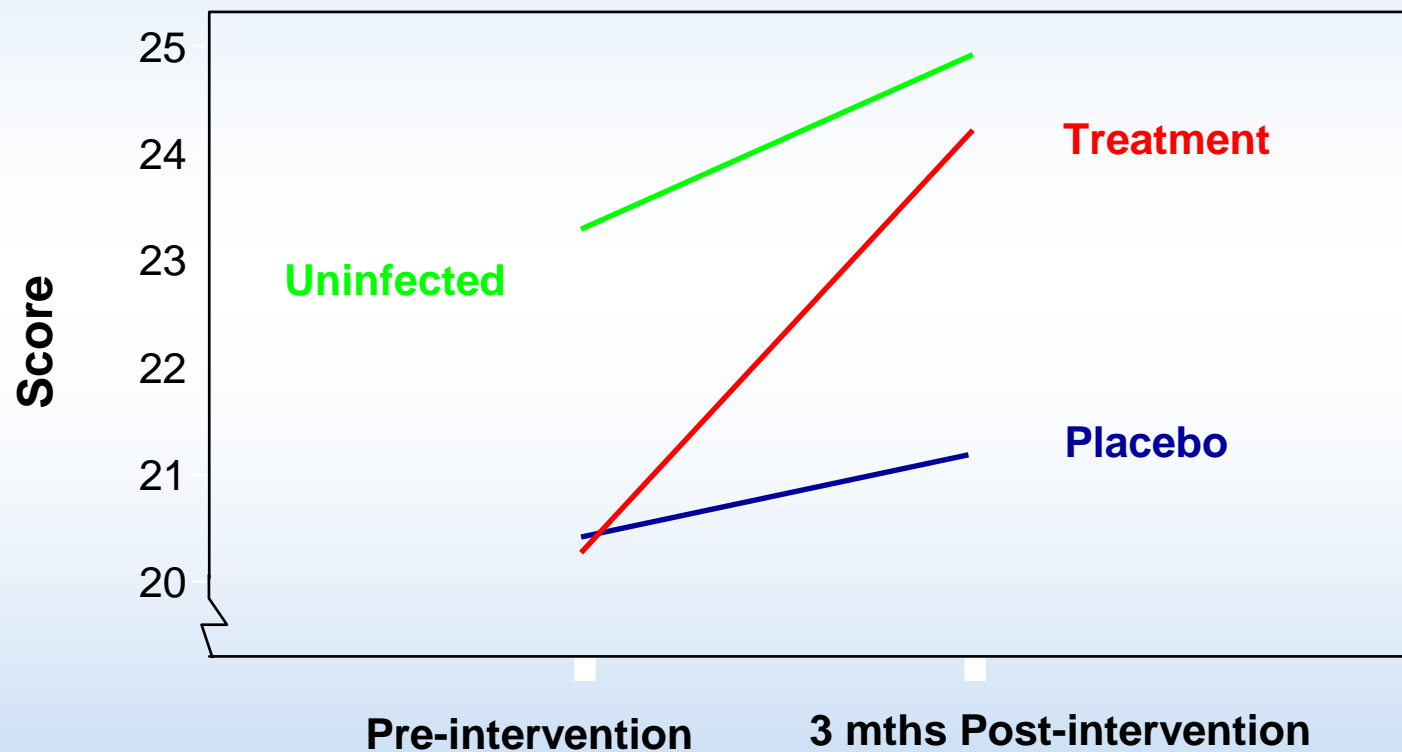
Success of HIV/AIDS education programs in sub-Saharan African Youth





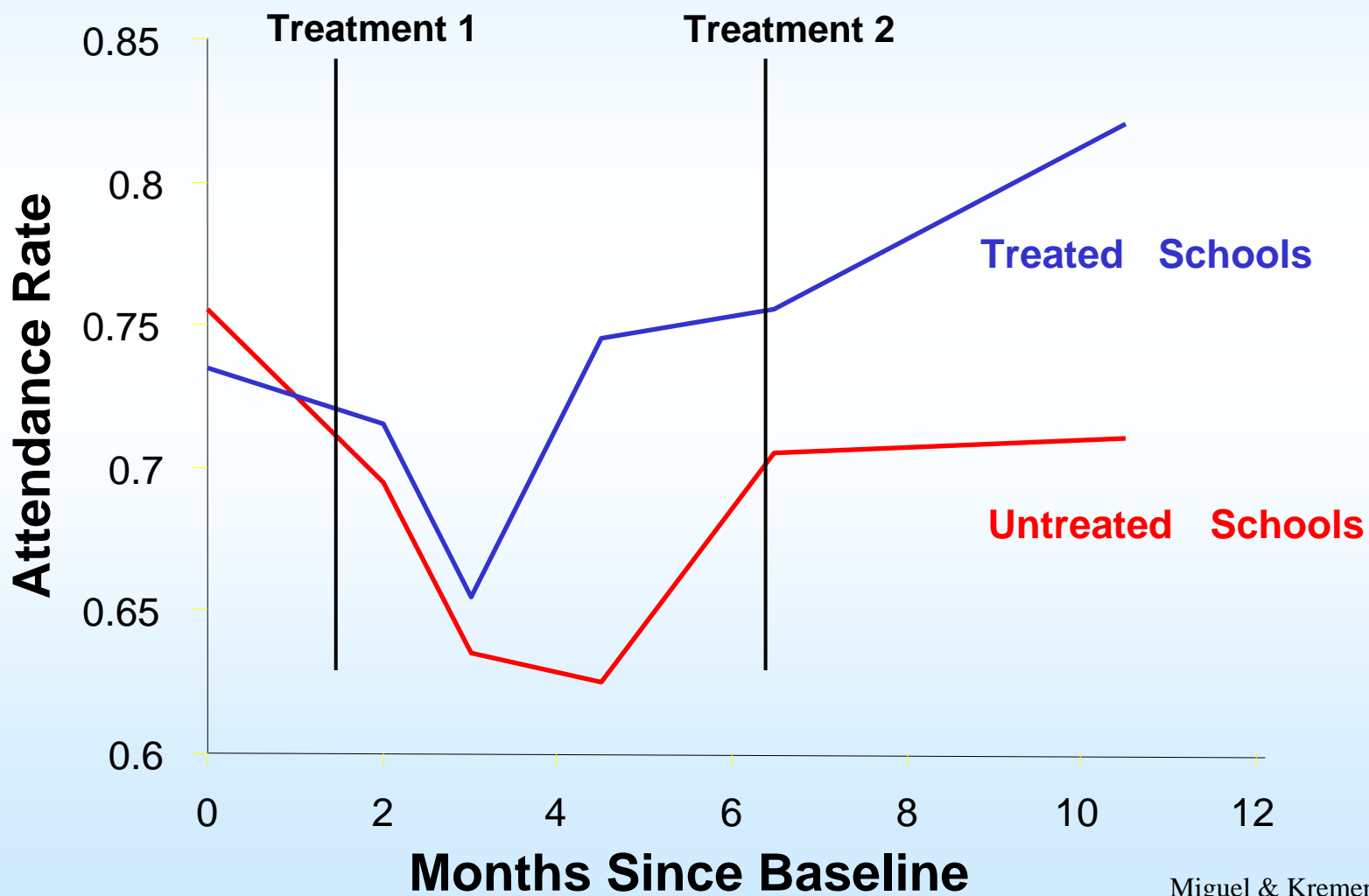
Improvement in Cognitive Performance with Treatment in School Children in Jamaica

Categorical Fluency

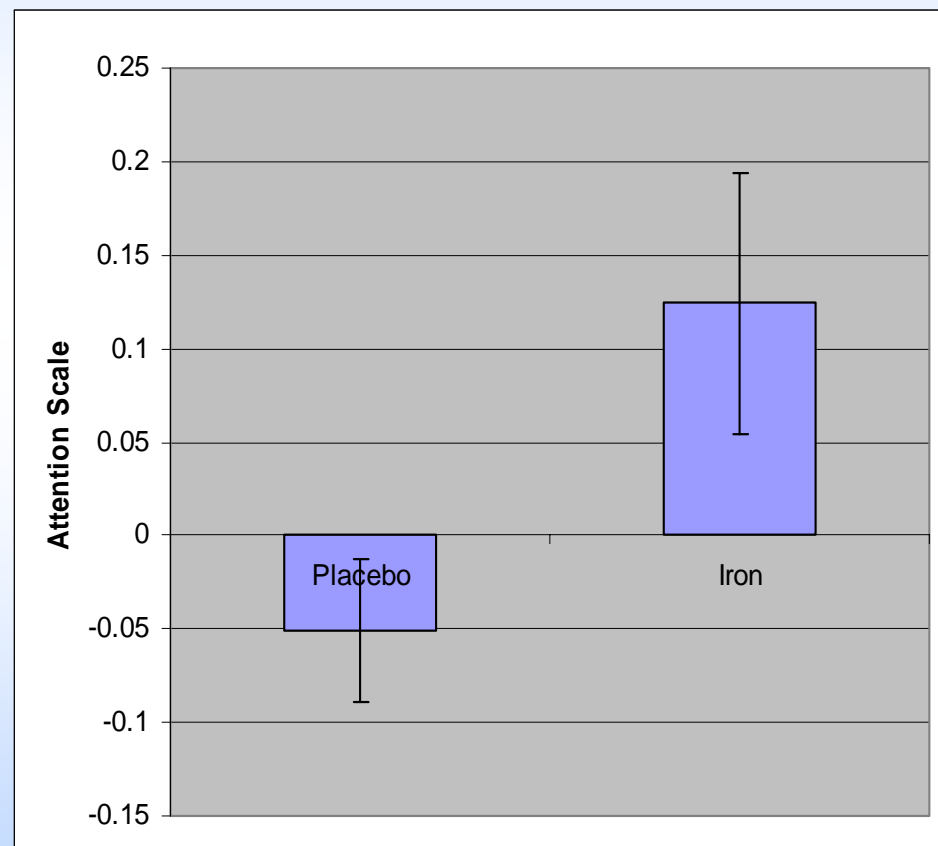


Nokes et al 1992

Improvement in School Attendance Following De-Worming in Busia, Kenya

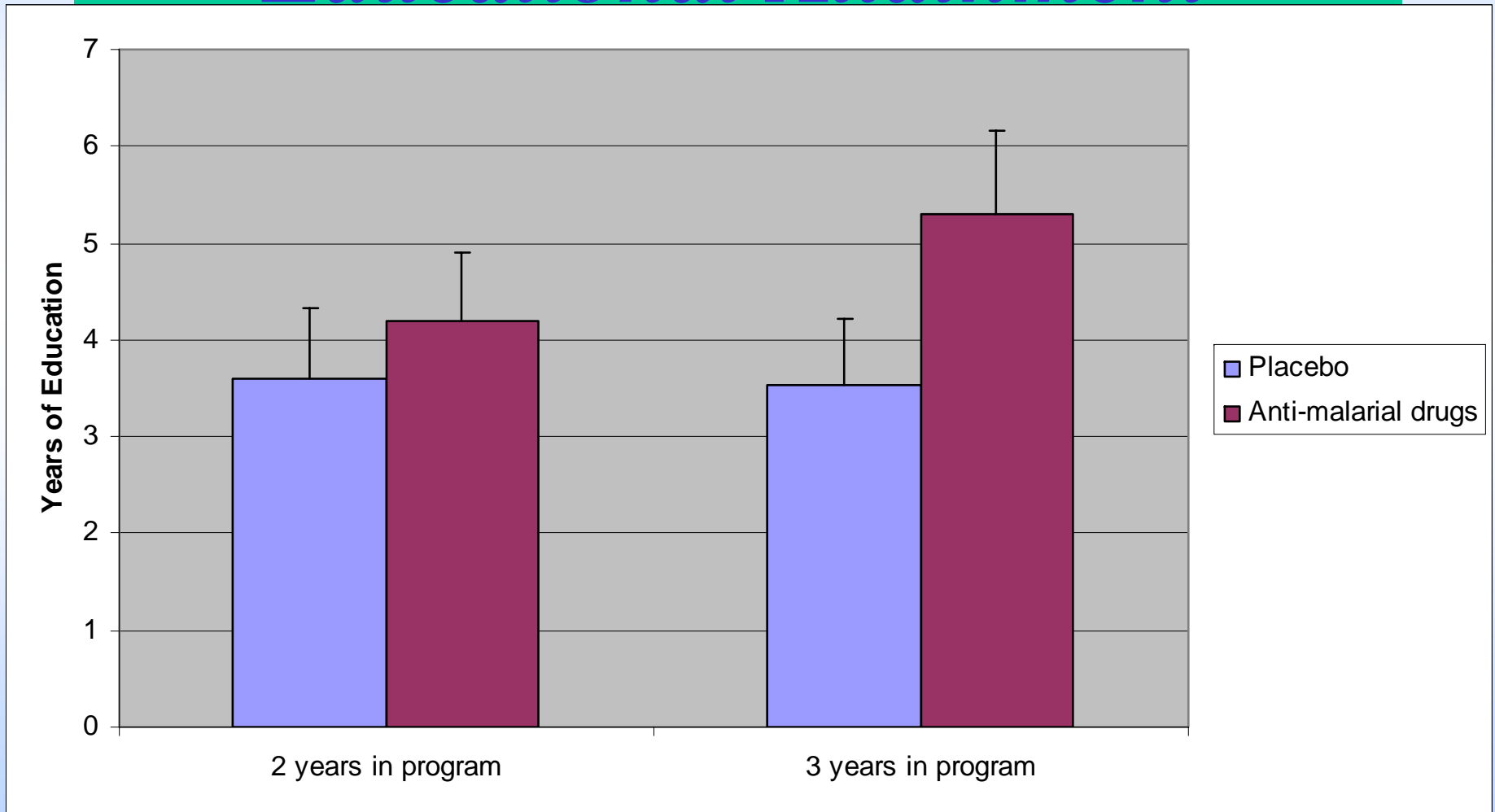


Impact of iron on attention in Delhi preschool children

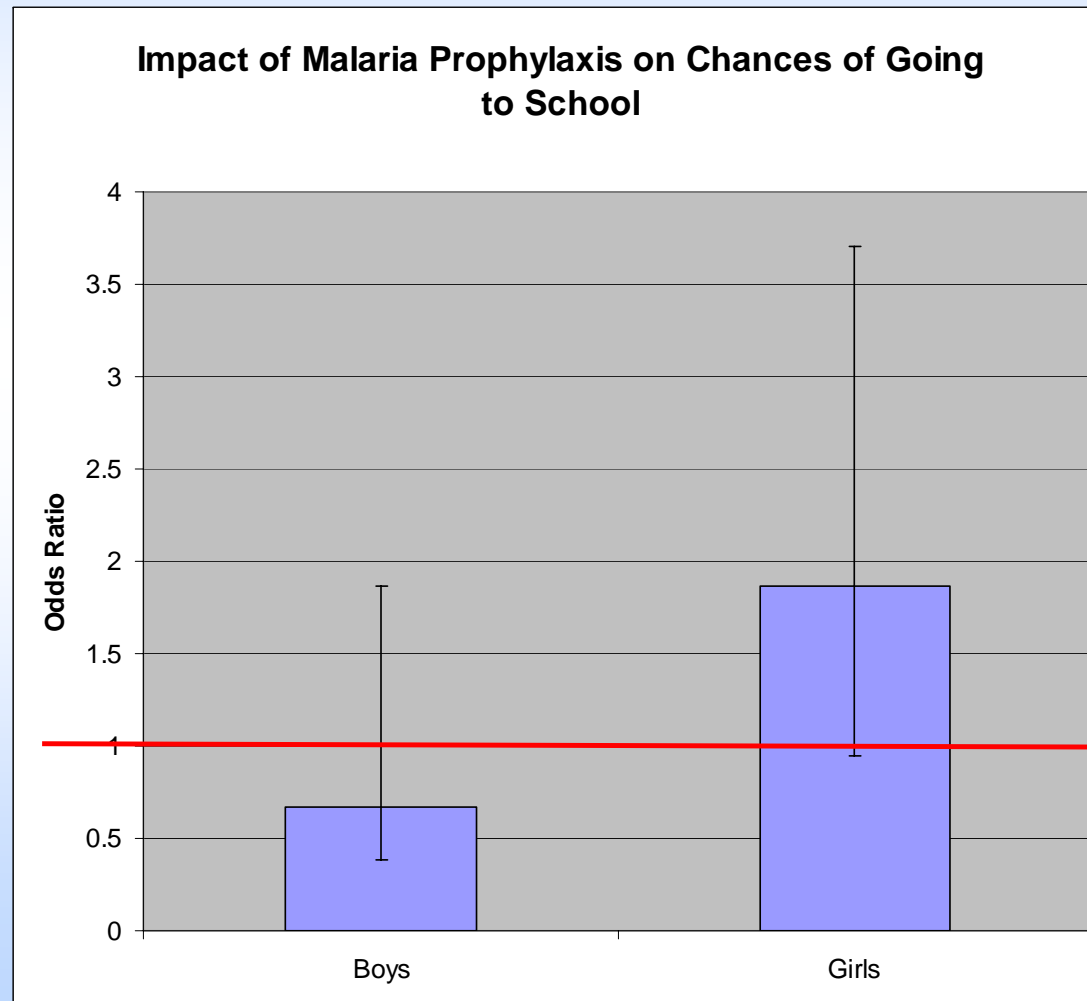


Jukes, et al (in prep)

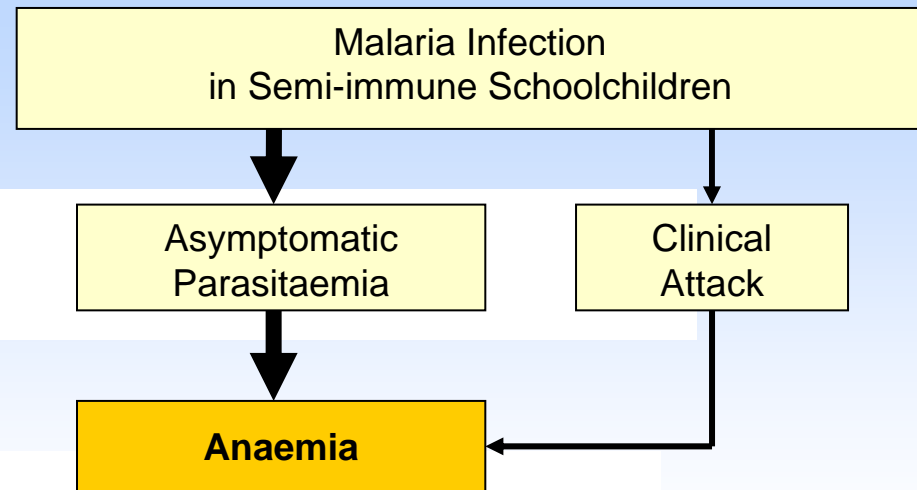
Malaria Prevention and Educational Attainment



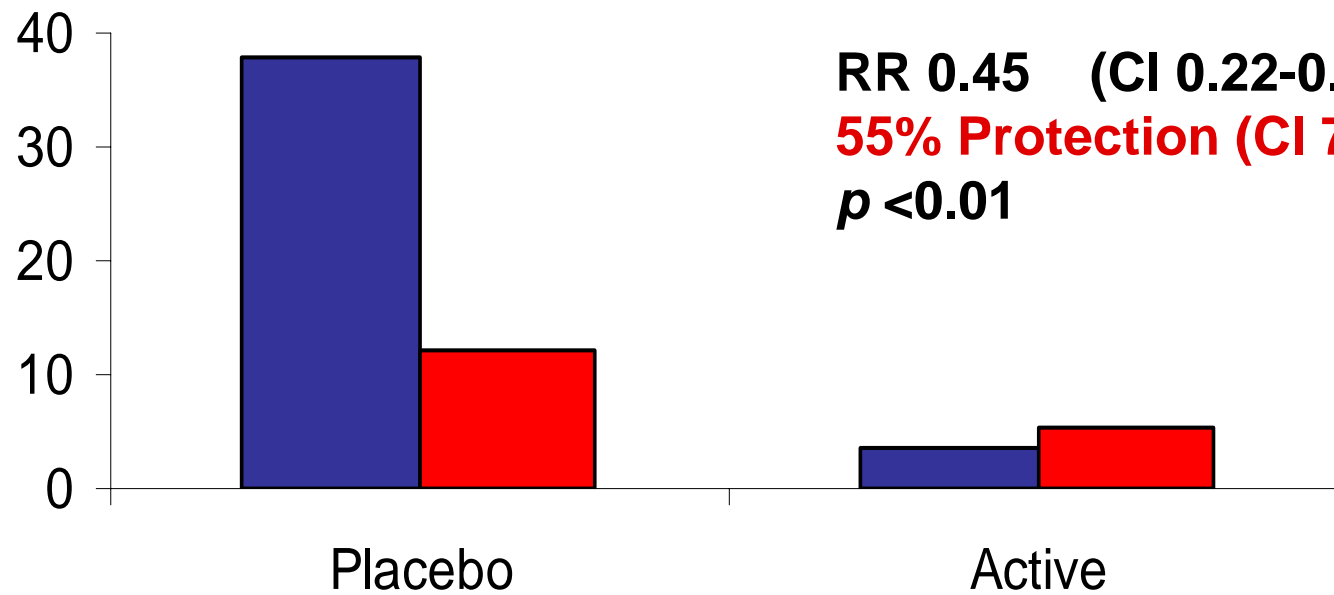
Malaria Prevention and School Enrollment



Impact of IPT on haemoglobin level



Prevalence (%)



RR 0.45 (CI 0.22-0.94)
55% Protection (CI 7-78%)
 $p < 0.01$

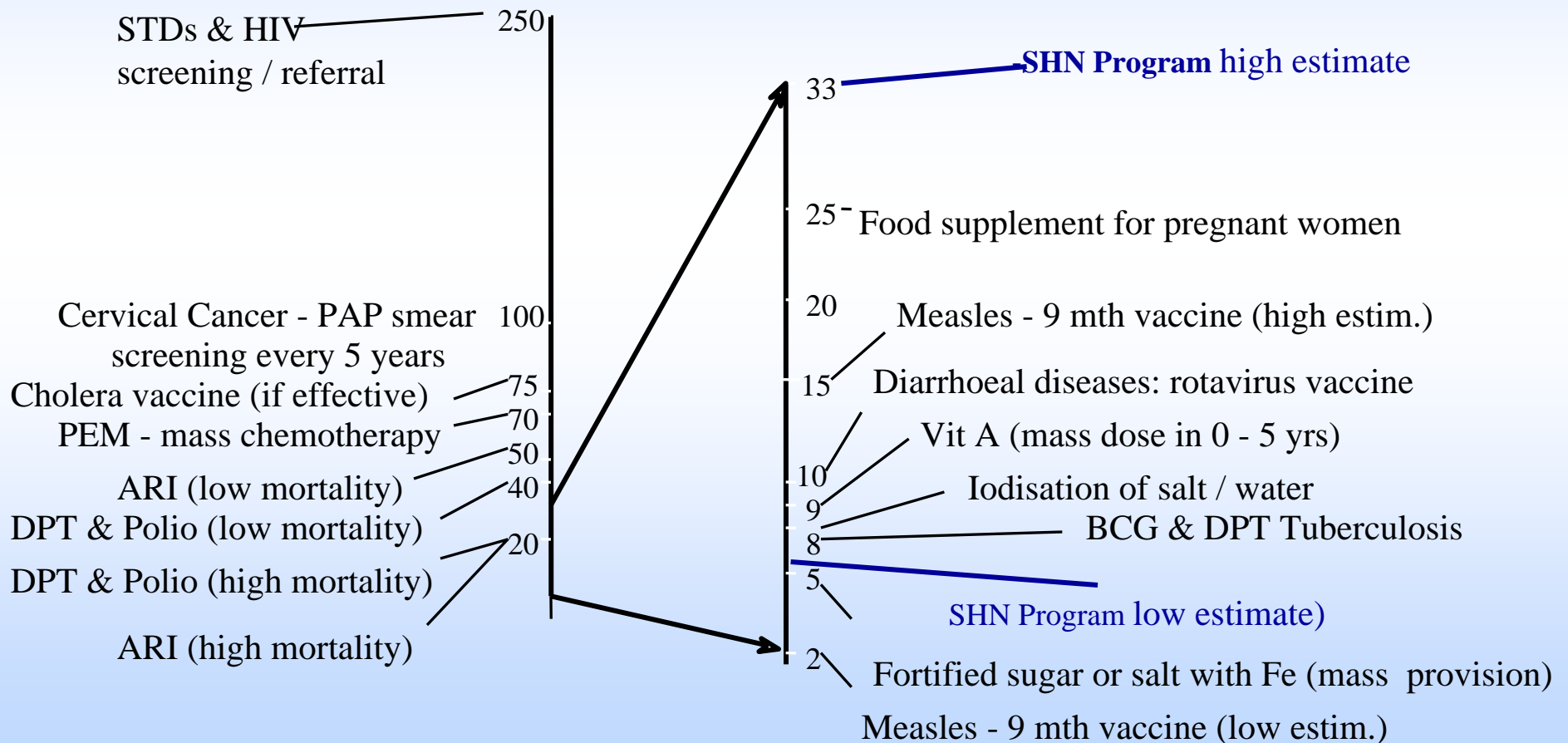
■ P. falciparum ■ Anaemia <110g/L

Global Impact of Ill Health on Education

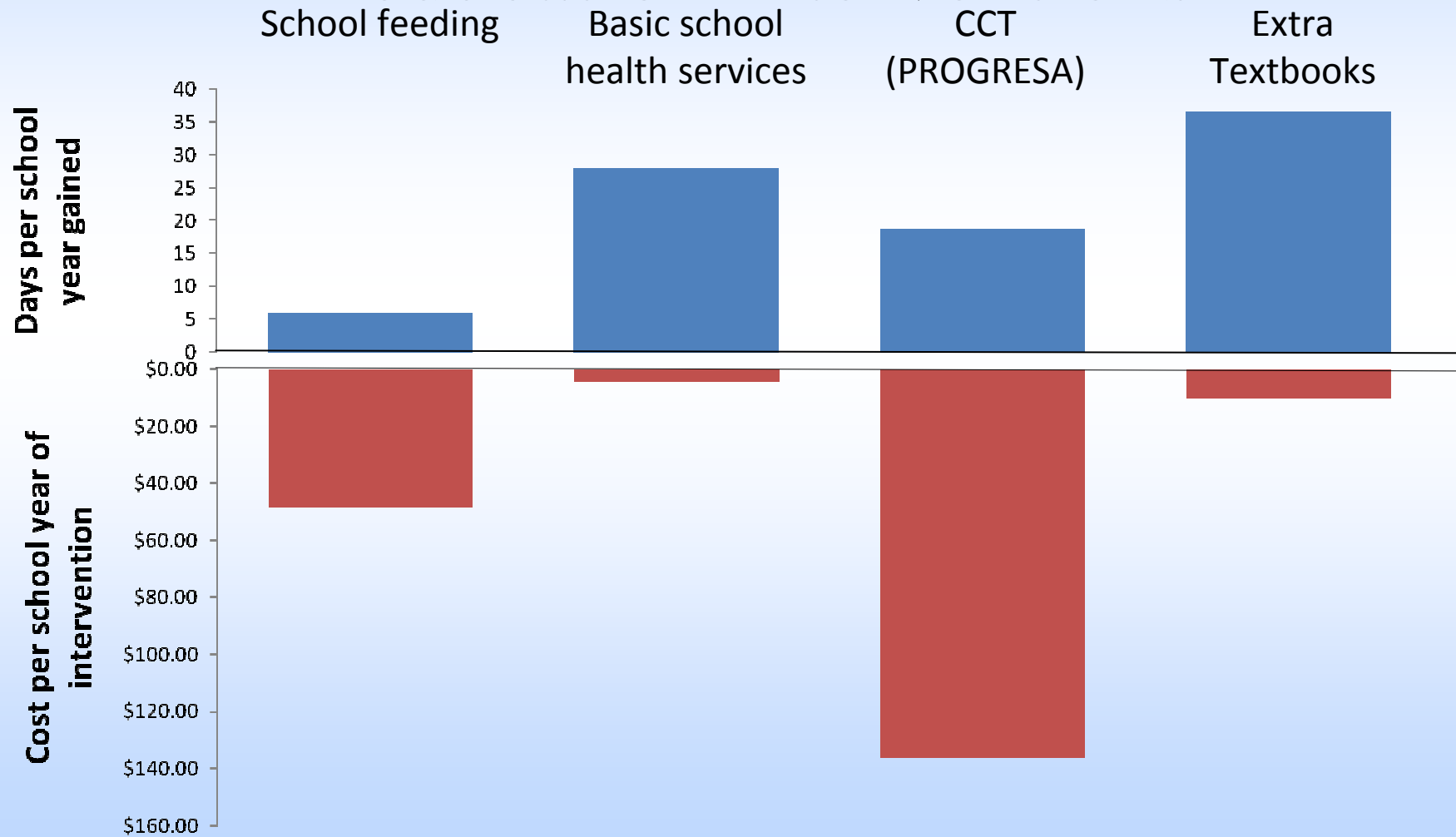
	Prevalence	Total Cases (millions)	IQ points lost per child	Additional cases of IQ < 70 (millions)	Lost years of schooling (millions)
Worms	30%	169	3.75	15.8	201
Stunting	52%	292	3	21.6	284
Anaemia	53%	298	6	45.6	524



Cost in US\$ per DALY (Disability Adjusted Life Year)



Cost and effectiveness of education interventions



Cost-effectiveness of education interventions

	School Feeding	Basic school health services	CCT (PROGRESA)	Extra Textbooks
Cost per school day gained	\$8.03	\$0.14	\$7.21	\$0.27

***A FRESH* Start:**
**Focusing Resources on Effective School
Health, Hygiene & Nutrition**

- **Child Friendly SchoolsUNICEF**
- **Health Promoting Schools...WHO**
- **Education for All...UNESCO**
- **Food for Education...WFP**
- **School Health Initiative...World Bank**

A *FRESH* Framework:

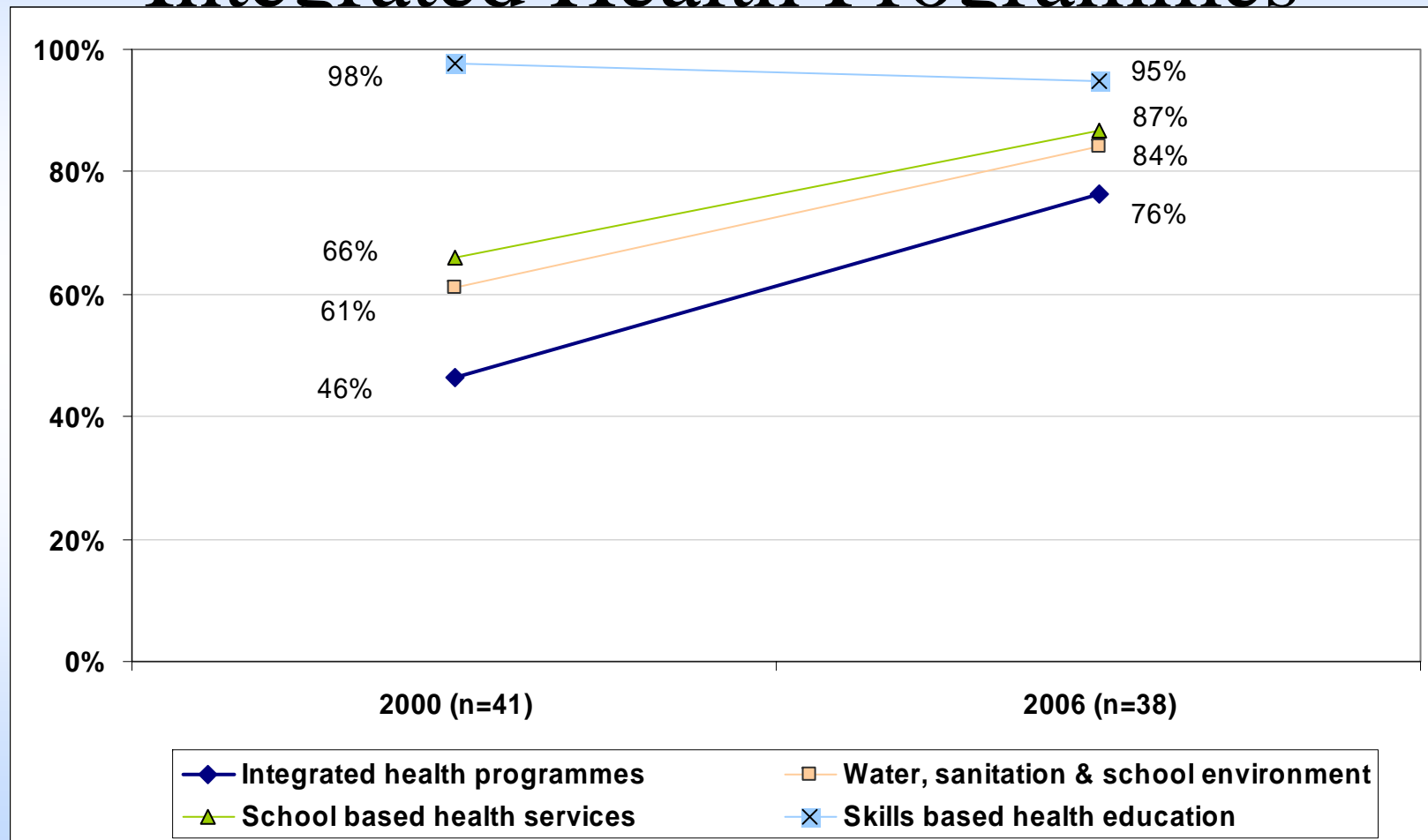
Consensus organizing principles for planning
School Health & Nutrition Programs

- **Policy:** for health, HIV/AIDS, hygiene and nutrition in schools
- **Environment:** safe and hygienic for all schools
- **Education:** skills-based for health, hygiene and nutrition
- **Services:** school-based for health and nutrition

FRESH as an international education partnership

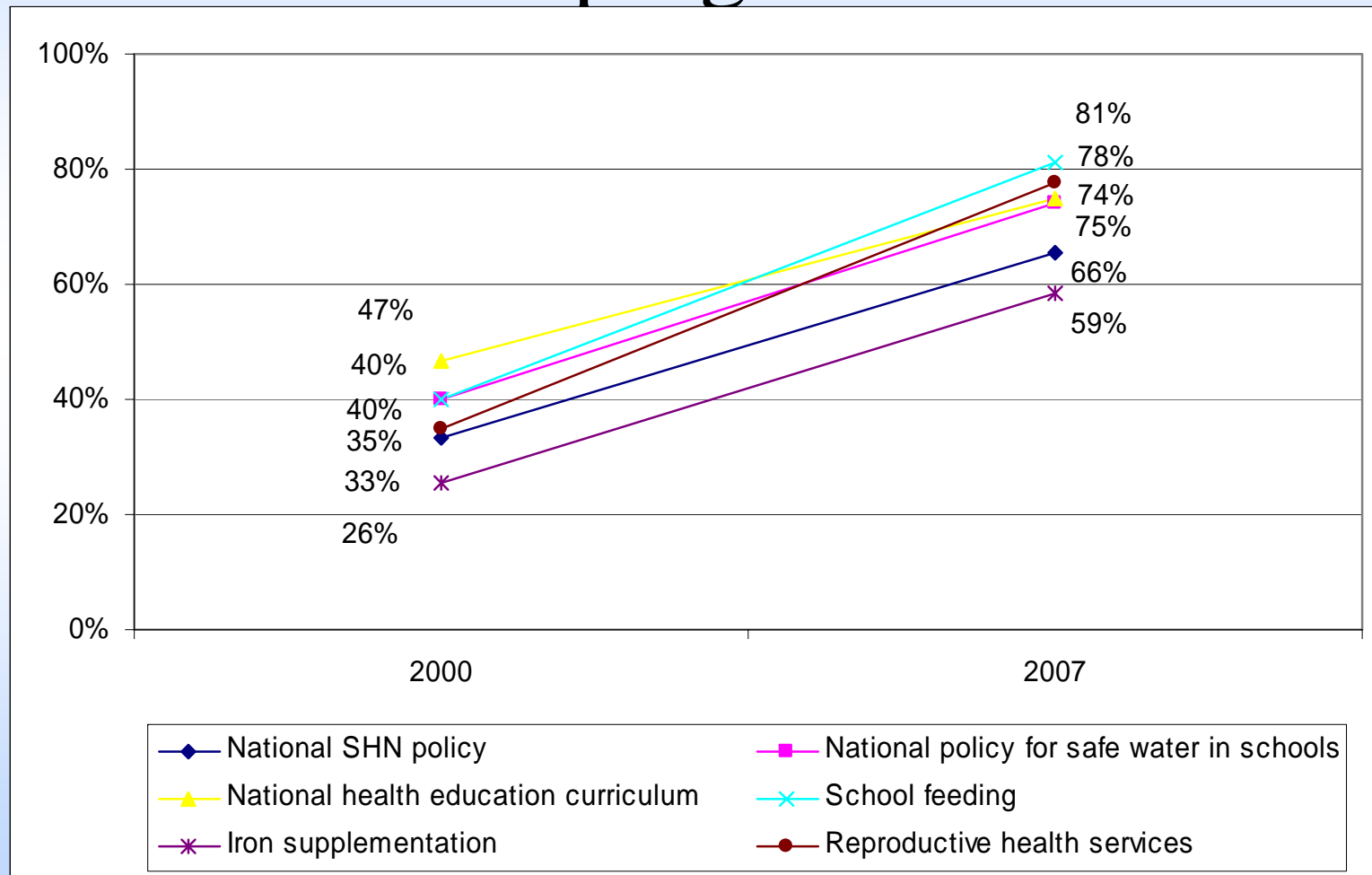
- **Launched at the Global “Education for All” Forum in Dakar, Senegal
April 2000**
- **WHO, UNICEF, UNESCO, World Bank & Others**

Organisations are moving towards Integrated Health Programmes

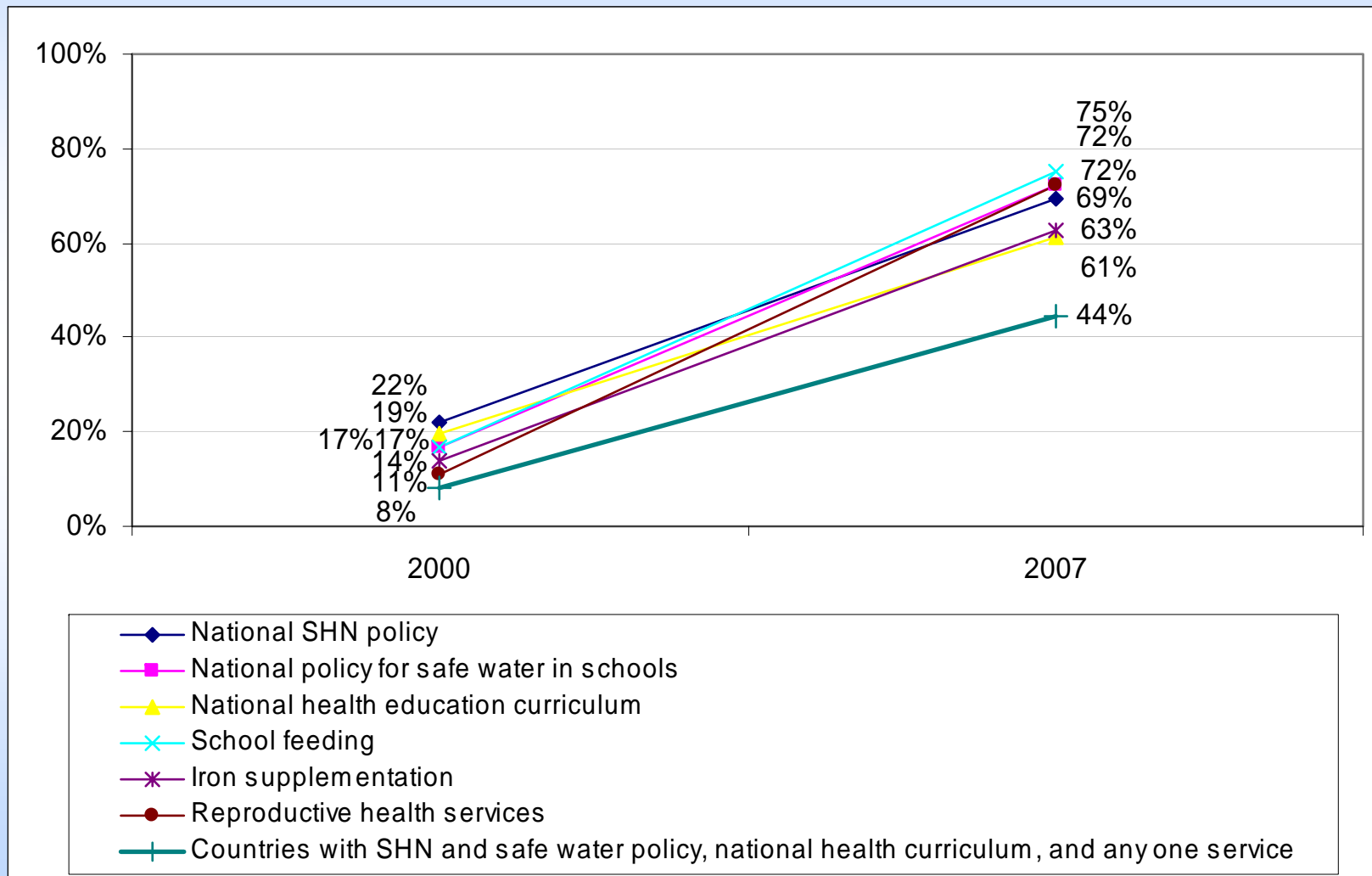


Source: Partnership for Child Development (2007) Directory of Support to School-Based Health and Nutrition Programmes. Updated Survey 2006

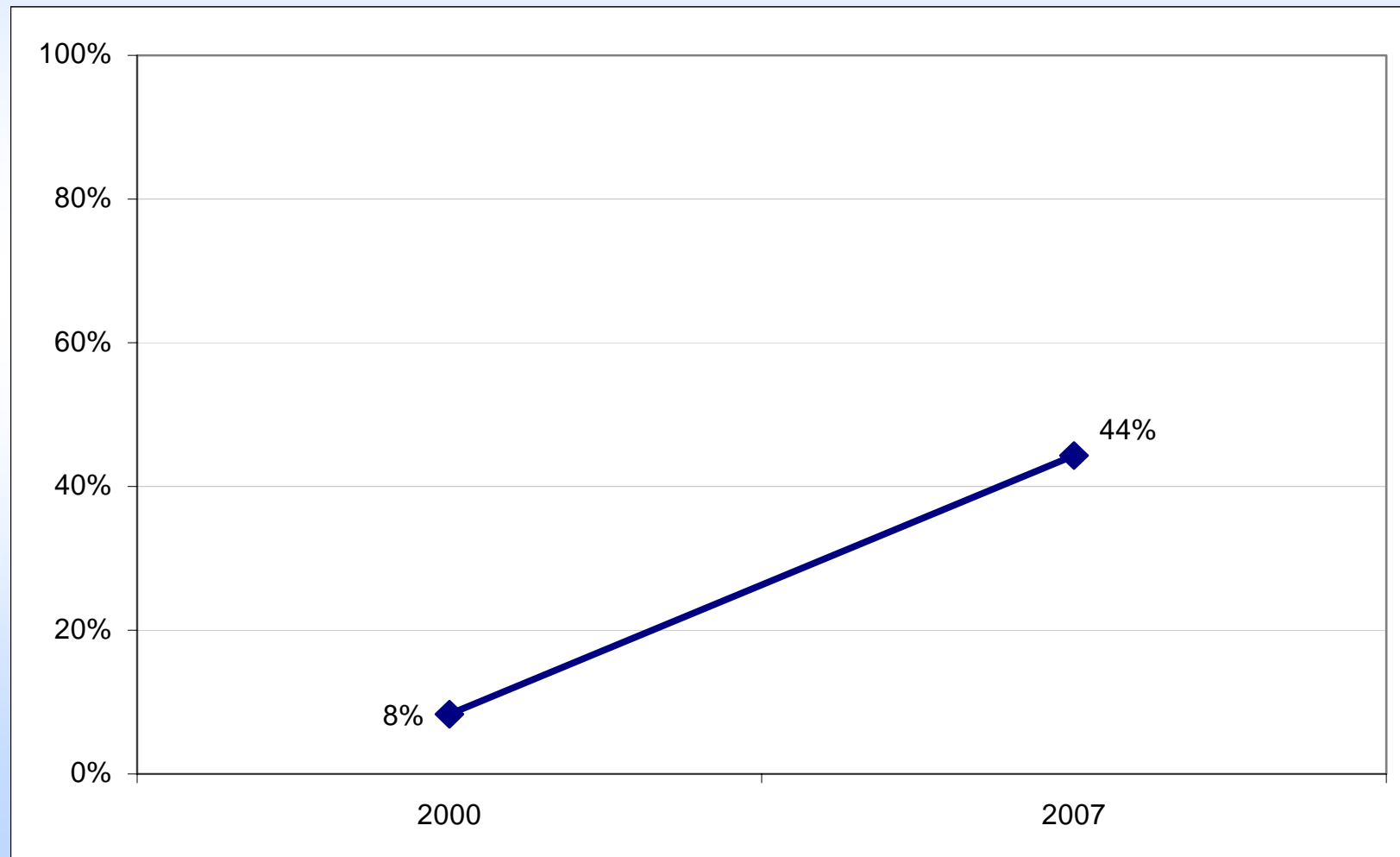
Country level implementation of SHN programmes



Countries from sub-Saharan Africa implementing SHN programmes



Countries from sub-Saharan Africa implementing all four pillars of FRESH



Top 10 challenges of Copenhagen Consensus 2008

	SOLUTION	CHALLENGE
1	Micronutrient supplements for children (vitamin A and zinc)	Malnutrition
2	The Doha development agenda	Trade
3	Micronutrient fortification (iron and salt iodization)	Malnutrition
4	Expanded immunization coverage for children	Diseases
5	Biofortification	Malnutrition
		Malnutrition &
6	Deworming and other nutrition programs at school	Education
7	Lowering the price of schooling	Education
8	Increase and improve girls' schooling	Women
9	Community based nutrition promotion	Malnutrition
10	Provide support for women's reproductive role	Women

Vision going forward

- **Seamless link between ECD and SH**
- **Inclusive education**
- **Schoolfeeding**
- **Refractive error**

For more information, please visit:

www.schoolsandhealth.org

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School Health

Improved Learning through better Health, Nutrition and Education for the School-Aged Child

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- ✖ [Sourcebook of HIV/AIDS Prevention Programmes](#)
- ✖ [Education Access for Orphans and Vulnerable Children](#)
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