



**Technical Meeting of the Asia-Pacific Network for
Food and Nutrition on School Based Nutrition**

17 – 20 July 2007, Bangkok, Thailand

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OPENING ADDRESS

By

He Changchui

Assistant Director-General and
Regional Representative for Asia and the Pacific

delivered at the

Technical Meeting of the Asia-Pacific Network for Food and Nutrition on School Based Nutrition

17 – 20 July 2007, Bangkok, Thailand

Distinguished participants,
Representatives from WHO and UNESCO
FAO colleagues from Headquarters and the regional office,
Ladies and Gentlemen

It is indeed a pleasure for me to address this important Technical Meeting of the Asia-Pacific Network for Food and Nutrition on School Based Nutrition. On behalf of FAO Director-General Jacques Diouf and on my own behalf, I welcome all of you to this meeting organized by the FAO Regional Office for Asia and the Pacific.

There have been major changes in the nutrition scenario in the Asia-Pacific region. Although the region is still facing problems related to undernutrition and food insecurity, significant proportions of the people of the region are confronted with the double burden of malnutrition and diet-related chronic diseases. Obesity, diabetes, coronary heart diseases, hypertension and certain forms of cancers have indeed been recognized as main causes of premature death and disability

not only in industrialized countries but also in many developing countries that are becoming more and more prone to such life-style and diet-related health problems.

FAO recognizes the important contribution that schools can make in countries' efforts to overcome food insecurity and such types of malnutrition problems. To support these efforts, FAO in collaboration with other international organizations develops and promotes innovative strategies and materials that assist countries to plan and implement school based nutrition education. The organization of the present consultation is indeed timely and relevant in this context.

Schools are potentially excellent settings for nutrition education. Children consume at least one or two meals daily on school grounds. The school environment can strongly influence children's eating behaviours, whether through the examples provided by teachers and other adults, the food served in the cafeteria and classroom, or through exposure to peer habits. Effective nutrition education helps shape these environmental factors and assists students in developing the skills needed to select healthy diets. Given that eating habits have a profound impact on health in childhood and adulthood, schools provide a logical venue for ensuring that nutrition education reaches all school-age children, and even beyond, to their family members. It has been recognized that nutrition education plays an important role in an overall strategy for improving children's eating habits. A well-designed curriculum can focus on developing skills in food selection and preparation rather than just imparting information about the relationship between diet and health.

There is potential for the school meals programme to assume a more active role in nutrition education. It may be a good idea if schools consider taking steps toward including educational cafeteria programmes as well as classroom work in school nutrition education.

Because eating habits developed during childhood have the potential to last a lifetime, it is important for children to learn about the benefits of good nutrition. Education to establish healthy eating habits in life can assure that individuals have the information and skills they need to protect and enhance their own health and the health of their families. One can think of establishing "Team Nutrition" to help schools implement the School Meals Initiative. The mission of "Team Nutrition" could be to improve the health and education of young people by creating innovative public and private partnerships that promote food choices for a healthful diet through media, schools, families,

and the community. “Team Nutrition” can work simultaneously through two initiatives which include training and technical assistance to school food service personnel, and nutrition education for children.

Another concept which has tremendous potential towards nutrition promotion is establishing School Gardens. School Gardens are powerful tools for improving child nutrition and education. They have the potential to improve food security and human nutrition at the household level through replication in the home. FAO encourages schools to create moderate-sized learning gardens, producing a variety of fruits and vegetables using simple techniques so that teachers and parents can easily manage the garden and students can apply gardening techniques in their home. Improving the nutritional value of school meals by supplementing them with food rich in micronutrients, fresh from the School Garden is one of many benefits that School Gardens can offer.

The goal of nutrition education is to motivate people to eat a healthy diet. Children are an important audience for nutrition education because a healthy diet is essential for their normal growth and development, and because children are establishing food patterns that carry into adulthood. Good nutrition promotes not only better physical health and reduced susceptibility to disease, but has also been demonstrated to contribute to cognitive development and academic success. Left to their own devices, children will not automatically select healthy foods. Their innate preference for sweet foods makes them particularly vulnerable to the highly sugared cereals, soda, and candy that are marketed to them virtually from birth. In order to develop lifelong healthy eating patterns, children need to be introduced to a variety of nutritious foods in a positive manner.

Distinguished Participants

Ladies and Gentleman

In collaboration with WHO and Education International, FAO co-published a document entitled *Health Nutrition: An Essential Element of a Health-Promoting School*. Implemented in southeastern China, FAO worked with WHO and the Education Development Centre to assist six pilot schools in developing nutrition education and services. The experiences gained in this project are described in two journal articles, namely *Nutrition as an entry point for health promotion schools: lessons from China* and *Creating health-promoting schools in China with a focus on nutrition*. In fact, the pilot projects proved to be so successful that the local governments

have decided to expand the Health-Promoting Schools project into 50 additional schools in 11 cities across Zhejiang Province. A comprehensive Planning Guide to assist curriculum developers to plan nutrition education and activities that incorporate local nutrition issues and needs is forthcoming soon. A companion training manual will help prepare professionals to facilitate the curriculum planning and implementation process. Keeping this spirit in view, I suggest the meeting considers the following key action points during your discussions: (1) Compulsory Nutrition Education in the School Curriculum; (2) Inclusion of Comprehensive Nutrition Education Topics highlighting the relationship between diet and health; (3) Coordination of Nutrition Education at all national fora; (4) Providing more Resources for Nutrition Education; (5) Strengthening School Meals Programme; and (6) Introducing School Garden Programme.

I am pleased to share with you that two recently concluded projects in Bangladesh and Lao PDR have demonstrated that School Gardening amalgamated with nutrition education can be powerful tools for promoting horticulture and nutrition.

I am also happy to see that there are as many as 26 participants from 11 countries (Bangladesh, Cambodia, China, India, Indonesia, Lao PDR, Nepal, Philippines, Sri Lanka, Thailand and Viet Nam). Besides there are colleagues from international organization like WHO and UNESCO. I am confident that a meeting like this will generate rich deliberations and I am looking forward to the outcomes of the meeting.

I now declare the *Technical Meeting of Asia-Pacific Network for Food and Nutrition on School Based Nutrition* open.

I thank you all and wish you a pleasant stay in Bangkok.



**Technical Meeting of the Asia-Pacific Network for
Food and Nutrition on School Based Nutrition**

17 – 20 July 2007, Bangkok, Thailand

Timetable

DAY 1: TUESDAY, 17 JULY 2007

0830 hrs **Registration**

Opening Session

0900 - 0930	Welcome Remarks Biplab K. Nandi, Secretary, ANFN, and Senior Food and Nutrition Officer, FAO Regional Office for Asia and the Pacific (RAP), Bangkok
	Introduction of Participants
	Opening Address ADG/RR, FAO Regional Office for Asia and the Pacific
	Photo Session / Refreshment
1010 - 1040	Election of the Office Bearers Objectives, adoption of provisional agenda, timetable and organization of the Consultation Biplab K. Nandi, Senior Food and Nutrition Officer, FAORAP, Bangkok

Agenda Item 1: Global and regional trends in nutrition, health and education

1040 – 1100	HIV/AIDS Coordination and School Health in Asia Simon Baker, Chief, HIV/AIDS Coordination and School Health Unit, UNESCO Principal Regional Office for Asia and the Pacific (PROAP)
1100 – 1130	Responding to trends in nutrition and health through schools in the

	Western Pacific Region Dr. Andrew Colin Bell, Technical Officer, Noncommunicable Diseases, WHO Western Pacific Region
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Agenda Item 2: Country Presentations on the nutrition situation of school age children and school based health and nutrition programmes (incl. nutrition education)

1130 - 1230	Group work on the theme (4 groups; with country presentations)
1230 - 1330	Lunch hosted by ADG/RR, FAO RAP
1330 - 1430	Group work on the theme (contd.)
1430 – 1445	Plenary presentation on the theme, Group 1
1445 – 1500	Plenary presentation on the theme, Group 2
1500 – 1515	Plenary presentation on the theme, Group 3
1515 – 1530	Plenary presentation on the theme, Group 4
1530 - 1600	Coffee break
1600 – 1700	Questions and answers
1700 - 1715	Summing up
1715 - 1745	Meeting of the Drafting Committee

DAY 2: WEDNESDAY, 18 JULY 2007

Agenda Item 3: Nutrition Education in Schools – FAO Approaches and Materials

0830 - 0900	Main influences on children’s food and eating patterns in the region Brainstorming (in groups)
0900 - 0930	Nutrition Education in Schools: FAO Approaches and Activities Ellen Muehlhoff, Senior Nutrition Officer, FAO Headquarters
0930 - 1000	Nutrition Education in Primary Schools: A Planning Guide for Curriculum Development Peter Glasauer, Nutrition Officer, FAO Headquarters
1000 - 1030	Coffee break
1030 - 1100	Nutrition-Friendly Schools Initiative

	Ellen Muehlhoff, Senior Nutrition Officer, FAO Headquarters
1100 - 1130	FAO's approach and work in school gardening Biplab K. Nandi, Senior Food And Nutrition Officer, FAORAP
1130 - 1200	Questions and Discussion
1200 - 1300	Lunch

Agenda Item 4: Nutrition Education in Schools: Lessons Learned and Best Practices from Country Projects and Initiatives

1300 – 1325	Country Project 1 – Thailand
1325 – 1350	Country Project 2 – Philippines
1350 – 1415	Questions and discussion
1415 – 1440	Country Project 3 Bangladesh
1440 – 1510	Coffee break
1510 – 1535	Country Project 4 – India
1535 - 1600	Country Project 5 – Cambodia
1600 – 1630	Questions and discussion
1630 – 1645	Summary of lessons learned
1645 - 1715	Documents review
1715 – 1745	Meeting of the Drafting Committee

DAY 3: THURSDAY, 19 JULY 2007

Agenda Item 5: Review of ongoing country school health and nutrition programmes

0830 – 1030	Group work on ongoing country school health and nutrition programmes (as presented under agenda item 2; four working groups)
	<i>- Coffee and Refreshment during Group Work -</i>
1030 -1230	Presentation of the working group outputs and discussion
1230 – 1330	Lunch

Agenda Item 6: The way forward - future action

1330 - 1500	Group work on follow-up activities, dissemination strategies, potential funding sources and country action plans (four working groups; and country teams)
1500 - 1530	Coffee break
1530 - 1700	Presentation of the working group outputs and discussion (10+5 minutes per group outputs; +5 minutes per country action plan)
1700 -1730	Meeting of the Drafting Committee

Agenda item 7: Review of international conference on nutrition/World Food Summit follow-up Activities in the context of MDG**DAY 4: FRIDAY, 20 JULY 2007**

0830 – 1200	Field visit to Institute of Nutrition, Mahidol University, Bangkok The Drafting Committee simultaneously prepares the draft Report of the Consultation
1200 - 1300	Lunch

Agenda item 8: Adoption of report and closing

1300 – 1415	Presentation and review of (draft) main findings and recommendations of the consultation
1415 – 1430	Adoption of recommendations
1430 - 1445	Closing of the Consultation

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Guide for group work on

Agenda Item 2: Country Presentations on the nutrition situation of school age children and school based health and nutrition programmes (including nutrition education)

Group work (4 groups) with country presentations of group members and preparation of summary for subsequent presentation and discussion in plenary.

Mandate:

1. describe the current country situation in respect of the points dealt with in the questionnaire and the outline given below, referring to any relevant documentation
2. raise questions (e.g. is nutrition education effective ?)
3. identify important issues and needs (e.g. need for teacher education, parent attitudes)

Participants base their presentations on their completed questionnaires.

Session format: Four groups, each representing three (two) countries.

- Each country describes its situation, which is summarized on PP slides or on a poster. Questions and issues are identified and noted on separate PP slides/posters.
- The group Rapporteur makes a plenary presentation.
- The slides/posters are displayed for future reference
- Documents are added to the document exhibition.

Outline for country presentation:

- A. (1) the nutritional and health status of school-age children and (2) factors that influence children's food intake and nutritional practices
- B. the response from the different sectors in terms of direct health and nutrition interventions (e.g. school feeding, de-worming, vitamin supplementation, health monitoring)
- C. the response in terms of school based nutrition education, re-emphasising its importance in affecting behaviour and reaching future generations, and touching on the important parameters for effective NE (place in curriculum, time allocated, needs-based behaviour-oriented approach, whole-school policy, links to family and community, use of school gardens, staff development).

Outline for PowerPoint master slide / poster

Country:

A1. Summary of nutritional and health status of school-age children

A2. Factors influencing children's food intake and nutritional practices

B. Inventory of existing direct health and nutrition interventions

C. Features of existing school based nutrition education programmes

Country presentation on the nutrition situation of school-age children and school-based health and nutrition programme – Group 1

Bangladesh

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Mirza Altaf Hossain

Nepal

Indira Sharma
Indra Bahadur Shrestha

Sri Lanka

M P H Silva
Chandrani Piyasena

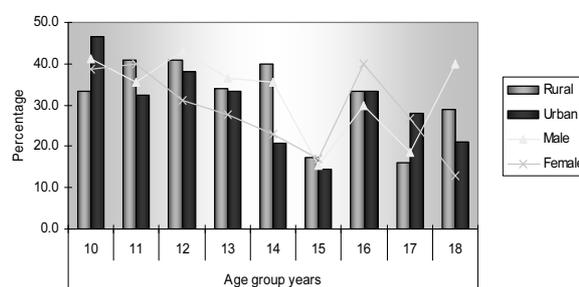
Nutritional status

- Overweight and Obesity
 - increasing trend in all 3 countries in urban sector
 - Bangladesh – perception-
 - Nepal same as above
 - Sri Lanka- Obesity - 1% (Female- 0 and Male -1.6%)
 - » Overweight – 1.5% (Female – 1.5%, Male 1.6%)
 - Age gps – 9 – 10 years - 3.1%
 - 10 – 15 2.2%

Underweight (BMI- thinness)

- Bangladesh – no data
- Nepal 39%
- Sri Lanka 30.8% (F 26.4%, M – 33.6%)
 - 9 – 10 years 52.6%
 - 10 – 15 years 47.2% (F F – 36.1%, M – 57.9%)

Prevalence of undernutrition (Thinness) by age, sector and gender



Stunting

- Bangladesh – 19% (Not representative)
- Nepal – 49%
- Sri Lanka-
 - 10 – 18 years 31.8%
 - 9 – 10 years 15.5%
 - 10 – 15 years 28.5%

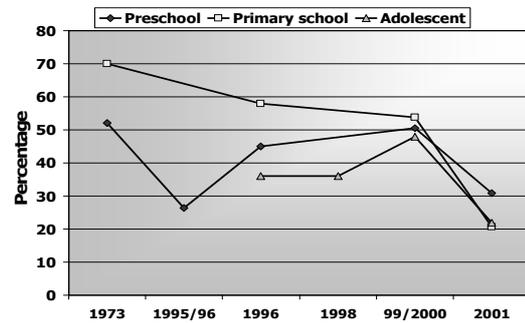
Nutritional status ctd.

Micronutrient deficiencies:

- Declining trend for all three countries
 - VAD
 - IDD
- Trend in IDA – Nepal - 66.8% among school girls
 - Reported declining trend in Sri Lanka and Bangladesh.
 - But prevalence for schools - no specific data for Bangladesh.

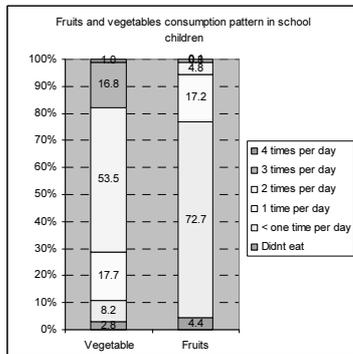
IDA in Sri Lanka

Trends in anaemia in children



Source: 1973- De Mel & Sood
1995- Mudalige & Nestel, 2000- Piyasena (unpublished - MRI), 2001 -MRI

Consumption of fruits and vegetables – school children



Health Status

- Malaria
 - Nepal – not applicable
 - Bangladesh – NA
 - Sri Lanka – 6.4% - declining trend
- Intestinal parasites
 - Nepal
 - » 1996- 74%
 - » 1998 – 48%
 - » 2004 – 40%
 - Sri Lanka - < 5%

Health Status- contd.

- Diarrhoeal diseases
 - Nepal 12%
 - Bangladesh - DNA
 - Sri Lanka – DNA
- Dengue fever – DNA for all three countries
- HIV / AIDS – Same as above

Factors influencing children’s food intake and nutritional practices

Food Intake

- Inadequate food availability
 - Bangladesh
 - Nepal
 - Sri Lanka – 1% of school children
- Rural – Urban differences
- Nutritional practices
 - Less emphasis on school children's health and nutrition programs
 - Poor awareness
 - Weak nutrition education programs
 - Nutrition policy – not implemented properly
 - Inadequate growth monitoring and interventions
 - Poor inter-sectoral coordination

Health and Nutrition Interventions

H & N interventions

- School Medical Inspection in Sri Lanka
- Regular Deworming programmes – in Nepal, SL and Bangladesh
- Mid day meal programs
 - For selected food deficit areas in Bangladesh, Nepal and Sri Lanka
 - Milk ,Mid morning meal for all small schools and selected schools (Different criteria) in Sri Lanka
- School Canteen Policy – January, 2007 in Sri Lanka
- Health Promotion Schools - School

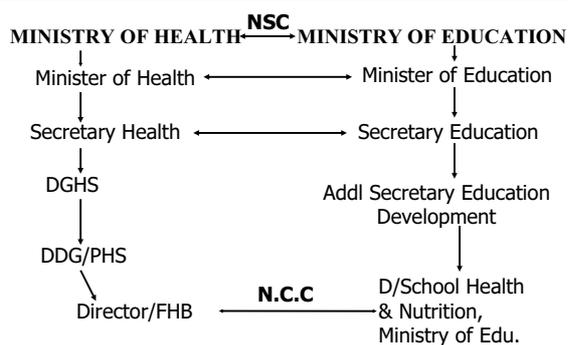
Weakness

- Overlapping of services by different sectors leading to duplication and different health messages
- Low priority for nutrition need at all levels
- Poor resources
 - Human
 - Logistics
 - financial
- Poor capacity building of staff
- Lack of data base

Existing school based nutrition education

- Incorporated in health subjects in Nepal, Bangladesh and SL
 - Incorporated in environmental studies (Our food, our garden, plants and balanced diet in Primary education -Sri Lanka
 - Home Economics, Agriculture, Science and technology, Health and Physical education in Secondary education – Sri Lanka
- Nutrition Education is mostly theory based in Nepal
 - Sri Lanka – practical and technical skills

To improve nutritional status of school children by continuous monitoring and appropriate intervention.



To enhance community participation for the promotion of school health activities

To provide a system of monitoring and evaluation to assess the effectiveness of the school health programme

To promote, healthful & safe school environment, that would facilitate learning



School Canteens- in SL

Special attention has taken on following.

- Prevention of selling carbonated drinks, Instant food which have high salt, oil and sugar, some varieties of toffees.
- Limit the selling of food which have harmful oil and sugar.
- Promote selling of fruits, fresh milk, rice, grain and endogenous food.
- Keep the canteen and it's environment clean and proper manner.
- Provide drinking water facility.

Appendix VI

**Country Presentations on the
Nutrition Situation of School-age
Children and School-based
Health & Nutrition Programs**

**Group 2:
India & Philippines**

**Summary of nutritional & health of
school-age children**

	India	Philippines
1. Obesity	0.1-0.3% (10-17 y.o.)	
2. Overweight	0.9% (10-17)	2.78% (6-12 y.o.) (DepED data)
3. Stunting	30.1% (6-9) 34.2% (10-13) 36.8 (14-17)	16.22% (6-12) (DepED data)

**Summary of nutritional & health of
school-age children**

	India	Philippines
4. Underweight	41.3% (6-9) 38.5% (10-13) 37.8 (14-17)	17.09% (6-12 y.o.) (DepED data)
5. VAD	1.9%	36% (FNRI, 2003)
6. IDD	1.4%	11.4% (FNRI, 2003)

**Summary of nutritional & health of
school-age children**

	India	Philippines
7. IDA	1.6% (Boys, Severe) 2.4% (Girls, Severe) 15.8% (Boys, Mod) 18.3% (Girls, Mod)	34.4% (FNRI, 2003)

Factors Influencing children's food intake and nutritional practices

- **Family Factors:** Income, Family size, Educational level of mothers, Workload of the mother,
- Health & nutrition knowledge of mothers
- **School Factors:** Variety of foods available in the school canteen (selection, presentation & prices), workload of school canteen teachers, health & nutrition knowledge of teachers

Factors Influencing children's food intake and nutritional practices

- **Individual Factors:** Health status, academic workload, health & nutrition knowledge, peer influences, extra-curricular activities of the child, access to computers & tv
- **Other Factors:** Media

Inventory of Existing Direct Health & Nutrition Interventions

- **India (National Programs)**
 - Mid-Day Meal Program
 - Nutrition Program for Adolescent Girls
 - Kishori Shakti Yojana (Empowerment of Adolescent Girls)
 - Iron & Folic Acid Supplementation for School Children & Adolescents
 - Adolescents Education Program
 - School Health Program

Note: All programs have nutri ed components

Inventory of Existing Direct Health & Nutrition Interventions

- **Philippines**
 - School Milk Program
 - Breakfast Feeding Program
 - Applied Nutrition Program
 - Food for School Program
 - Food Production Program
 - Teacher-Child-Parent Approach
- Note:* All programs have nutri-ed components, health & nutritional assessment

Features of School-based Nutrition Education Programs

- India & Philippines
 - complementary to other nutrition interventions i.e not an isolated program
 - use of IEC materials
 - training for service providers & target groups
 - multi-stakeholder involvement & participation (communities, parents, NGOs, business sector)

Features of School-based Nutrition Education Programs

- focused on development of healthy eating habits & lifeskills-based
- built-in technical backstopping, monitoring & evaluation

Appendix VII

Group3

Chhavyoth So (Camboja)
 Yoshiko ogawa (Camboja)
 Fengying Zhai (China)
 Ma Jun (China)
 Hardinsyah (Indonesia)
 Colin Bell (WHO WPRO)

Prevalence of Nutrition Problems

Obesity	<=6 % (China)
Overweight	<= 8.7 % (China)
Stunting	3.6 % (China)
underweight	<=17.6 % (indo) 9.3 % (china)
VAD	8.8 – 32 %
IDD	4-11.1%
IDA	14.4-47.2 %

Communicable diseases

Malaria	1/100.0000
Intestinal parasite	5.5 – 7.6 %
Diarrhea	5.0 -31.8 %
HIV/AIDS	1/1000-1/100.000
Dengue fever	2/1000-100.000

Poor hygiene	50-60 %
Not having breakfast	30-34 %

Factors influences

- Food Intake & nutritional practice:

Food advertising
Nutrition knowledge of student
Nutrition knowledge of mother
Type of available
Income/Poverty
Demand on time
Women in workforce

3 and 4.

Type and Features of Intervention/Programs

- Happy ten minutes (China), a pilot
Body movement twice x a day at class in the school
Since 2004
- School Feeding Program in Cambodia
 - 1500 schools mostly in rural areas
 - 120 to 360 /school
 - Breakfast meal at 6.30
 - Cooked by community volunteers, made from canned fish, rice, Vitamin A fortified vegetable oil, iodised salt, soybean
 - Since 1999 by WFP

3 and 4.

Type and Features of Intervention/Programs

- Child Friendly school Programs of Cambodia
 - Since 2001 By Unicef and partnership
 - 70 % of primary school
 - promoting safety and healthy behavior
 - through inserting into curriculum, teachers training
- Nutrition education
 - By MOH and MOE in selected areas for both primary and high school since 1990
 - Teachers and parent class/training
 - through parents meetings, twice a year

3 and 4.

Type and Features of Intervention/Programs

- School gardening in China
 - since 1995 in selected rural primary schools
 - managed by teacher and student
- National Policy on Physical Activities (PA):
China: 1 hour/day for part of PA subject
- Cambodia: 2 hours/weeks (part of PA subject)
Indonesia : 1hour/week (outside the PA subject)

- School Feeding Program in Indonesia

- from 1996-2000 as a national program of primary school at the under-developed village

- Since year 2000 was decentralized to local government, and not all local government continued the program

- as a snack given at 9-10 am

- 300 Kcal and 5 g protein, strongly suggest from local food. It was made by local volunteers or food industries

- Life skills Program in Cambodia

- a national program for students

- School gardening based on local foods

- hygiene, sanitation and HIV/AIDS programs