

# Lao PDR // Fit for School Program Assessment Study (FIT-PAS) 2012–2014



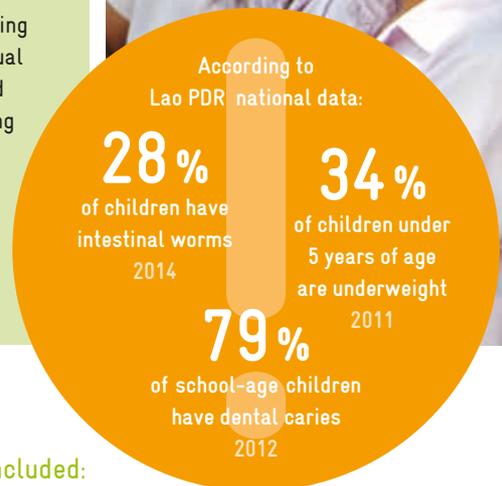
The Fit for School (FIT) program is an integrated school health and water, sanitation and hygiene (WASH) program of the Lao Ministry of Education and Sports (MoES), supported by the Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology (SEAMEO INNOTECH) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

The FIT approach is based on simplicity, scalability, sustainability and systems thinking, which are the cornerstones for transforming schools into healthy learning environments where skills-based hygiene practices are part of the school routines to form long-term healthy habits.

Interventions include the strengthening of school-based management (SBM) for implementing daily group handwashing with soap and toothbrushing with fluoride toothpaste and bi-annual school-based deworming according to national guidelines. Schools themselves constructed group handwashing facilities (WASHaLOTs – prefabricated handwashing facilities containing several water slots used for group handwashing and toothbrushing in schools).

The implementation of the FIT program in Lao PDR started in 2012 in 22 public primary schools. Currently, the program is being scaled-up in more schools in Lao PDR.

More information: [www.fitforschool.international](http://www.fitforschool.international)



A comprehensive Fit for School Program Assessment Study (FIT-PAS) was conducted to evaluate the impact of FIT interventions on:

Data collection included:

FIT-PAS	School	→ Water, Sanitation and Hygiene (WASH)	Assessment of WASH facilities in schools
	Child	→ Handwashing Behavior	Observation of handwashing practices after latrine use and interview on handwashing norms done only in Cambodia
		→ Child Health: Parasitological, Nutritional and Oral Health Status	Collection of stool specimen, weight and height measurements, oral health examinations and interviews

The study involved 22 model public primary schools in Vientiane implementing the FIT program and 22 control public primary schools implementing the regular health education curriculum and bi-annual deworming. The study was based on a random selection of 655 Grade 1 students aged six to seven years old at baseline with 82 % follow-up rate after two years. Review of school records on school attendance was also done, but data had several limitations and were therefore excluded from the analysis.

The research was carried-out by implementing organizations in collaboration with University College London (UCL) and University of Health Sciences in Lao PDR. Data were collected by trained personnel from the MoES, the Ministry of Health (MoH) and Lao University of Health Sciences, Faculty of Dentistry. Stool examinations were done by the Center of Malaria, Parasitology and Entomology. FIT-PAS has been conducted in Lao PDR as part of a regional study using similar protocols in Cambodia, Indonesia and the Philippines.

# Lao PDR // FIT-PAS Findings

## School Water, Sanitation and Hygiene (WASH)

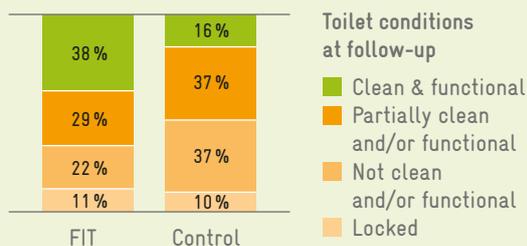
### Handwashing Facilities

Handwashing facilities at follow-up	FIT	Control
Total number of handwashing slots (n)	115	18
Percentage of handwashing slots with water & soap (%)	95%	23%
Average number of students sharing one water slot per school (n)	2	66

#### Two years after implementing the FIT program:

- Laotian FIT model schools had better access to handwashing facilities, water and soap due to the school-led construction of multiple group handwashing stations (WASHaLOTs).
- In model schools, the ratio of student to water slot was 2:1, contrasting to 66:1 in control schools.
- Encouraged by the program implementation, model schools even went beyond intended program activities by also building handwashing facilities for individual use.

### Toilets

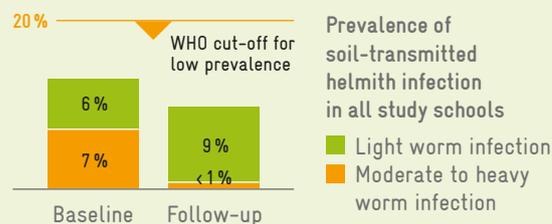


#### Two years after implementing the FIT program:

- The student-to-toilet ratio was 63:1 in model schools. A slightly lower ratio of 45:1 was seen in control schools.
- However, model schools had twice as many clean and functional toilets (38%) compared to control schools (16%).

## Child Child Health

### Intestinal Parasites // Soil-Transmitted Helminth Infection

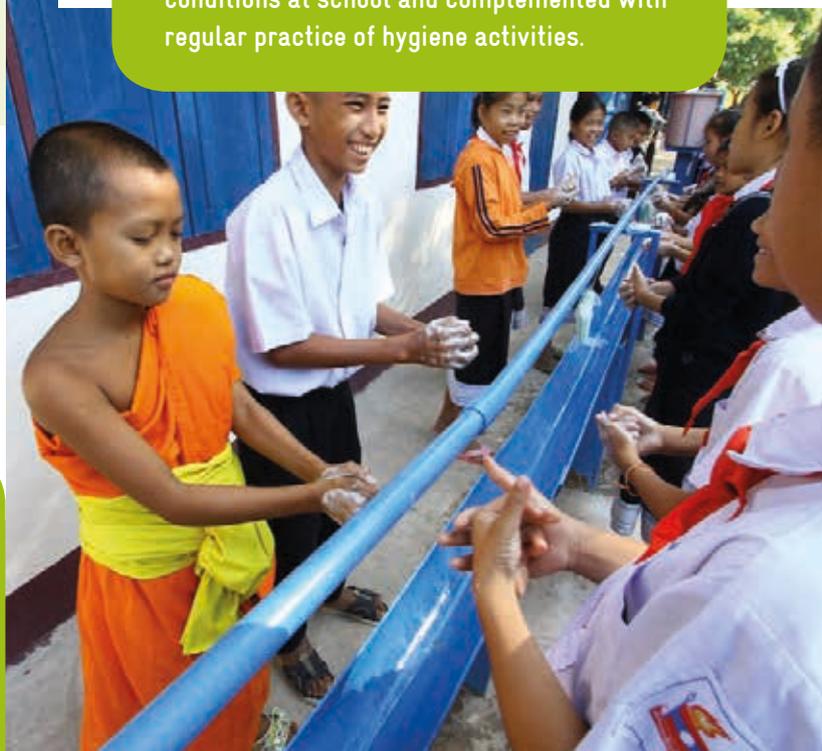


- Lao PDR has implemented a national deworming program for schoolchildren over several years.
- Children in model and control schools received the same regular deworming treatment and thus there was no significant difference in the worm infection prevalence.
- The very low prevalence of moderate to heavy worm infections of less than 1% in model and control schools reflects the effectiveness and regularity of deworming treatment in the participating schools.

#### The risk of having worm infection is higher for:

- girls,
- children who had worm infections at baseline – indicating a high reinfection rate,
- children from bigger families – indicating higher risk for disadvantaged population groups.

Deworming treatment needs to be embedded in overall improvement of WASH conditions at school and complemented with regular practice of hygiene activities.

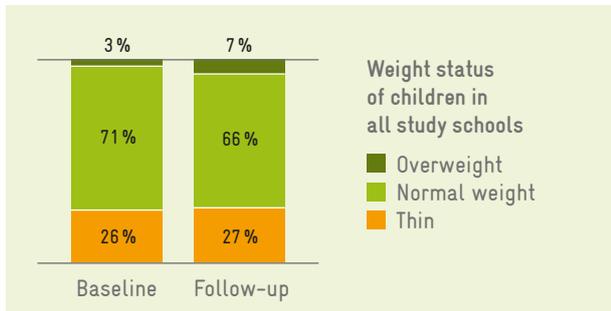


FIT model schools had better access to:

- water and soap
- clean and functional toilets

Stronger implementation quality is needed to ensure development of healthy hygiene habits.

## Nutrition // Weight Status



- One out of four children was thin at follow-up.
- The prevalence of thinness did not significantly change between baseline and follow-up, nor did it differ between FIT model and control schools.

### The risk of being thin is higher for:

- boys and younger children,
- children from poor families – indicating higher risk for disadvantaged groups,
- children who were already thin at baseline – indicating persistence of chronic condition,
- children with more decayed, missing, filled teeth.

- .....
- The prevalence of overweight at follow-up was 6% in model schools and 8% in control schools. Overweight was thus identified as an emerging public health problem in Lao PDR – these findings are in line with other studies.

## Oral Health // Dental Caries

Oral health indicators	FIT	Control
Increase in number of decayed, missing, and filled permanent teeth (DMFT) per child	0.26	0.41
Percentage of new caries prevented	37%	

- In both model and control schools, the burden of oral diseases was extremely high, with almost all children affected by dental caries in the primary dentition at baseline and at follow-up.
- At follow-up, one-third of the children had dental caries in at least one permanent tooth.
- Children in model schools had lower DMFT increment compared to control schools.
- The risk of developing caries was higher for children in urban areas.



Daily group toothbrushing in schools prevented 37% of new caries lesions.

The handwashing behavior study conducted in Cambodia showed that children in model schools more often practiced independent handwashing with soap after using the latrine (28%), compared to children in control schools (3%). The study also showed that group handwashing improves descriptive norms – seeing peers wash hands with soap encourages children to wash hands independently at critical times.





## Conclusion

### Challenges in Health and WASH in Schools in Lao PDR

.....  
 Limited access to well-maintained toilets in control schools.  
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 Limited access to handwashing facilities with water and soap in control schools.  
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 High prevalence of thinness (1 out of 4 children).  
 .....

.....  
 High prevalence of dental caries.  
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### Success of the Fit for School Program

.....  
 The Fit program improves access to handwashing facilities, water and soap. ✓

.....  
 The FIT program stimulates healthy hygiene practices, such as individual handwashing with soap at critical times. ✓

.....  
 The FIT program supports the implementation of the national deworming program. ✓

.....  
 The FIT program reduces the development of new dental caries lesions. ✓

#### Imprint

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