

Cambodia // Fit for School Program Assessment Study (FIT-PAS) 2012–2014



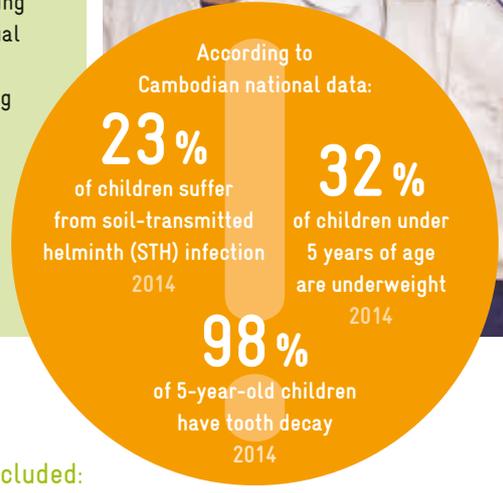
The Fit for School (FIT) program is an integrated school health and water, sanitation and hygiene (WASH) program of the Cambodian Ministry of Education, Youth and Sports (MoEYS) supported by the Southeast Asian Ministers of Education Organization Regional Center for Educational Innovation and Technology (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 Cambodia started in 2012 in ten public primary schools. Currently, the program is being scaled-up to more schools in several provinces.

More information: 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 |
| | | → Child Health: Parasitological, Nutritional and Oral Health Status | Collection of stool specimen, weight and height measurements, oral health examinations and interviews |

The study involved ten model Cambodian public primary schools implementing the FIT program and ten control public primary schools implementing the regular health education curriculum and bi-annual deworming. The study is based on a random selection of 624 Grade 1 students aged six to seven years old at baseline with 77% follow-up rate after two years. Review of school records on attendance and grades was also done, but data had several limitations and were therefore excluded from the analysis.

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

Cambodia // FIT-PAS Findings

School Water, Sanitation and Hygiene (WASH)

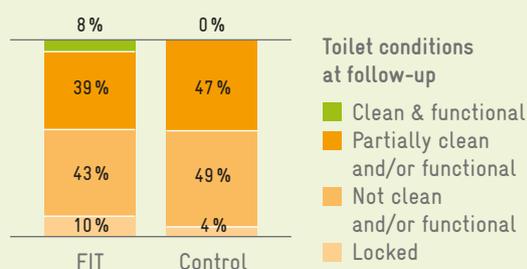
Handwashing Facilities

| Handwashing facilities at follow-up | FIT | Control |
|--|-----|---------|
| Total number of handwashing slots (n) | 224 | 18 |
| Percentage of handwashing slots with water & soap (%) | 89% | 33% |
| Average number of students sharing one water slot per school (n) | 4 | 55 |

Two years after implementing the FIT program:

- Cambodian FIT model schools had better access to handwashing facilities, water and soap due to the school-led construction of multiple WASHaLOTS.
- In model schools the ratio of students to water slot was 4:1, contrasting to 55:1 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 similar in model schools and control schools (93:1 and 88:1 respectively).
- Both model and control schools had an average of ten toilets per school, of which six toilets needed repair and almost all toilets needed cleaning.
- Slightly more toilets in model schools were clean and functional (as already observed at baseline).

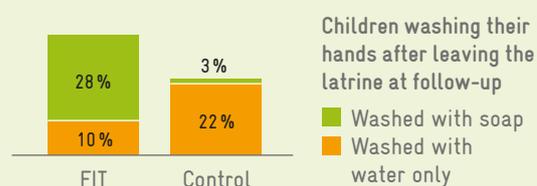
Child Handwashing Behavior

Handwashing Norms Interview

| Handwashing norms after using the latrine | FIT | Control |
|--|-----|---------|
| Children who reported they always wash hands with soap (%) | 44% | 40% |
| Children who reported soap is very important (%) | 67% | 74% |
| Children who think all classmates wash hands with soap (%) | 20% | 7% |

- The perceived importance of handwashing with soap was similar in model and control schools.
- More children in model schools think their classmates wash hands with soap after using the latrine compared to children in control schools (20% vs 7%).
- This may indicate that group handwashing improves descriptive norms – seeing peers wash hands with soap encourages children to wash hands independently at critical times.

Handwashing Observations



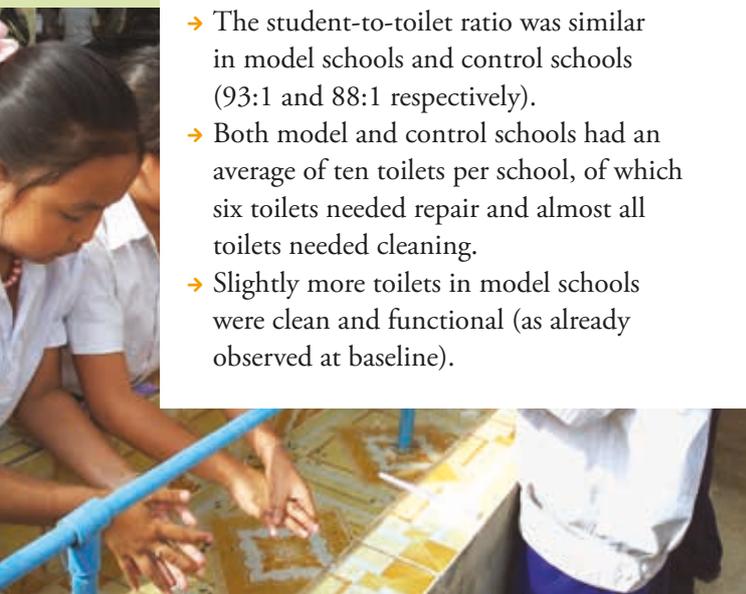
- Children in model schools more often practiced independent handwashing with soap after using the latrine, compared to children in control schools.

The WASH and handwashing behavior survey revealed:

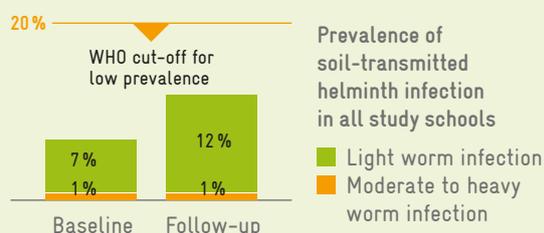
- Problems in operation and maintenance of WASH facilities in all schools.
- Despite model schools performing better at the time of follow-up, maintenance of WASH facilities and handwashing practices still need to be improved.

Access to water and soap encourages children to practice handwashing at critical times.

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



Intestinal Parasites // Soil-Transmitted Helminth Infection



- Since 2004, Cambodia has implemented a national deworming program for schoolchildren.
- Children in model and control schools received the same regular deworming treatment and thus there was no significant difference in worm infection prevalence.
- The very low prevalence of moderate to heavy worm infections of 1% reflects the regularity and effectiveness of the deworming treatment in the participating schools.
- The slight increase in light worm infection prevalence between baseline and follow-up was not statistically significant.

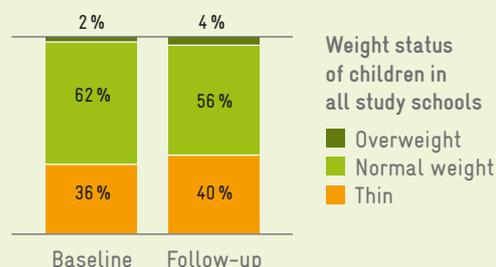
The risk of having worm infection is higher for children who:

- had worm infections at baseline – indicating a high reinfection rate.
- attend schools with less functional toilets – underscoring the need for complementary WASH interventions.
- come from poor families or live in rural areas – 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.

Nutrition // Weight Status



- The prevalence of thin children was persistently high in both model and control schools, with two out of five children being thin.
- Overweight is an emerging public health problem in Cambodia.

The risk of being thin is higher for children who:

- have severe dental caries – emphasizing the need to focus on oral disease prevention.
- were already thin at baseline – indicating persistence of the chronic condition.
- come from poor families or live in rural areas – indicating higher risk for disadvantaged groups.

Oral Health // Dental Caries

| Oral health indicators | FIT | Control |
|---|------|---------|
| Increase in number of decayed, missing, and filled permanent teeth (DMFT) per child (n) | 0.82 | 0.99 |
| Percentage of new caries prevented (%) | 17 | |

- 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 teeth at baseline and follow-up.
- FIT aims to prevent new caries and decrease the progression of existing caries in the permanent teeth. However, caries that already exist cannot disappear through the intervention.
- Children in model schools had 17% lower caries progression in the permanent teeth than children in control schools.



Daily group toothbrushing with fluoride toothpaste in schools prevented 17% of new caries lesions.





Conclusion

Challenges in Health and WASH in Schools in Cambodia

Limited access to well-maintained toilets in schools.

Limited access to handwashing facilities, water and soap in control schools.

High prevalence of thinness (2 out of 5 children).

High prevalence of dental caries.

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 development of the national deworming program. ✓

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

Imprint

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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
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GIZ Fit for School is grateful to the Cambodian Ministry of Education, Youth and Sports (MoEYS), Cambodian Ministry of Health (MoH), to the school heads, teachers and students of the participating schools and to the many people who contributed their knowledge and insights to the final publication.

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ISBN 978-3-95645-851-4



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Published by:

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

In partnership with:

