

# Indonesia // 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 West Java Provincial Education Office (PEO), 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, as well as 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 Indonesia started in 2012 in twelve public primary schools in West Java. The program is currently scaled-up to cover more schools in Indonesia.

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 nine of the twelve public primary model schools in Bandung City and Indramayu implementing the FIT program and nine control public primary schools implementing the regular health education curriculum and bi-annual deworming. The study was based on a random selection of 570 Grade 1 students aged six to seven years old at baseline with 85% 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). Data were collected by trained personnel from the Faculty of Dentistry, University of Padjadjaran (FKG UNPAD), the West Java School Health Team (TP UKS) and the Bandung City and the Indramayu Health Offices. Stool examinations were done by the West Java Provincial Health Laboratory (BLK), the Indramayu District Health Laboratory (LabKes) and the University of Indonesia. FIT-PAS has been conducted in Indonesia as part of a regional study using similar protocols in Cambodia, Lao PDR and the Philippines.

# Indonesia // FIT-PAS Findings

## School Water, Sanitation and Hygiene (WASH)

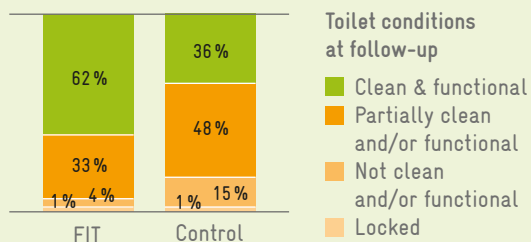
### Handwashing Facilities

Handwashing facilities at follow-up	FIT	Control
Total number of handwashing slots (n)	103	9
Percentage of handwashing slots with water & soap (%)	87%	10%
Average number of students sharing one water slot per school (n)	6	74

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

- 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 6:1, contrasting to 74:1 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

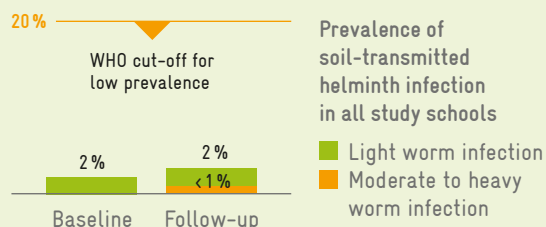


#### Two years after implementing the FIT program:

- The student-to-toilet ratio was 99:1 in model schools and 110:1 in control schools indicating that fewer children needed to share a toilet in model schools.
- Model schools had almost twice as many clean and functional toilets (62%) compared to control schools (36%). (Toilet conditions were slightly better in model schools at baseline.)

## Child Child Health

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



- Indonesia has implemented a national deworming program for schoolchildren over several years. The very low prevalence of worm infection in the FIT-PAS indicates that it works well for children attending participating schools. These low prevalence rates are, however, not in line with figures from other areas of the country or national data, suggesting that the situation in participating schools is much better with regard to STH infections.
- Children in model and control schools received the same regular deworming treatment. Therefore, there was no significant difference in STH prevalence between two groups.

Further analysis on the risk of STH infections was not possible due to the very low prevalence in study schools.

#### FIT-PAS results in other countries indicate that the risk of worm infection is higher for children who:

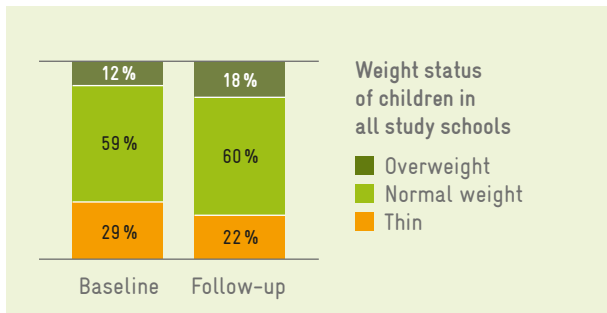
- had worm infections at baseline – indicating a high reinfection rate,
- attend schools with less functional toilets – underscoring the need for complementary WASH interventions,
- come from poor families or live in rural areas – indicating higher risk for disadvantaged population groups.

FIT model schools had better access to:

- water and soap
- clean and functional toilets

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



→ 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 children who:

- were already thin at baseline, possibly due to a chronic condition,
- come from large families, indicating that socio-economic disadvantage may be a co-factor for thinness.

→ The prevalence of overweight at follow-up was 21% in model schools and 15% in control schools. Overweight was thus identified as an emerging public health problem in Indonesia – findings 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	0.35	0.46
Percentage of new caries prevented	24%	

- 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 developed less caries compared to control schools.
- The risk of developing caries was higher for thin children and young children.



Daily group toothbrushing in schools prevented 24% 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 Indonesia

.....  
 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).  
 .....

.....  
 Increasing prevalence of overweight (1 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 implementation of national deworming program. ✓

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

#### Imprint

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 7/F PDCP Bank Centre / cor. V.A. Rufino and L.P. Leviste Streets  
 Salcedo Village, Makati City 1227, Philippines, www.giz.de

GIZ is grateful to the Provincial Education Office of West Java, the Ministry of Health, West Java School Health Team, Bandung City Health Office for the support and cooperation. Special thanks is given to officials of Universitas Padjadjaran as well as District Health Laboratory. GIZ thanks the principals, teachers, parents and children in participating schools for their time and to the many people who contributed knowledge and insights to the final publication.

**Principal Investigator:** → Dr. Martin Hobdell, Visiting Professor in Dental Public Health, Department of Epidemiology, University College London. **Chief Investigator:** → Pantjawidi Djuharnoko, Public Health Subdivision Head, Social Basic Services Bureau of West Java, Governor's Office. **Co-Investigators:** → Sri Susilawati, Lecturer of Dental Public Health Department, Faculty of Dentistry, Universitas Padjadjaran → Dewi Kartini Sari, Standardization Section Chief, Ministry of Health → Sitti Ganefa Fakki, Guidance and Evaluation Section Chief, Ministry of Health. **Contributors:** → Dr. Denise Duijster, Research Consultant, University College London → Dr. Robert Dreibelbis, Assistant Professor, University of Oklahoma Center for Applied Social Research → Dr. Katrin Kromeyer-Hauschild, Assistant Professor and Dr. Roswitha Heinrich-Weltzien, Professor, University Hospital, Friedrich-Schiller-University Jena → Dr. Habib Benzian, Adjunct Professor, New York University → Ms. Nicole Stauf, Policy Analyst and Project Manager, The Health Bureau → Mr. Philip Purnell, Manager, Educational Research and Innovation Office, SEAMED INNOTECH → Dr. Bella Monse, Coordinator for Research and International Relations and Ms. Jed Dimaisip-Nabuab, Sr. Research Coordinator, GIZ Fit for School.

Photos: → Ivan Sarenas. Design and layout: → Christine Lüdke, www.malzwei.de

For more Information on GIZ Fit for School, please contact:  
 Nicole Siegmund, nicole.siegmund@giz.de

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ISBN 978-3-95645-845-3



Published by:



In partnership with:

