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Nudging a Handwashing Habit

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presented by Georgia Davis



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Nudges



Research Questions

Inspired by Bangladeshi Study (Dreibelbis et al, 2016)

1. Do NUDGEs work only in a specific social/cultural setting or are the results more universal?
2. Is there a novelty effect of the NUDGEs?
3. After a long time with NUDGEs, will behavior last if we remove the nudges?
4. Do children fail to wash their hands with soap after latrine visits because there is no convenient place to wash the hands and there is no soap?

Research Approach

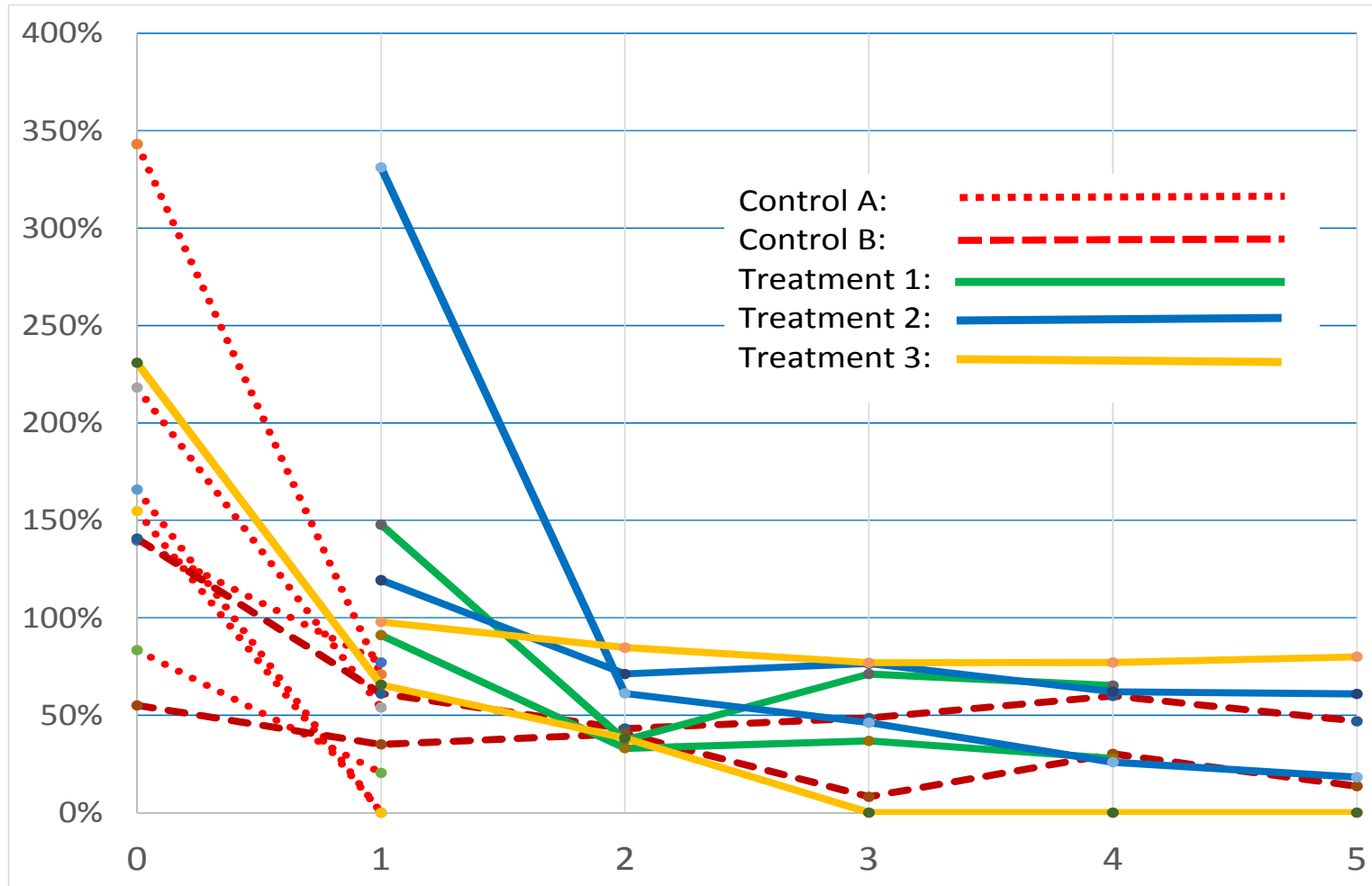
- KAP survey (self administered) filled in by all 5th graders
- Observation of handwashing behavior
 - 12 periods during school day
 - Availability of soap and water recorded for each period
 - Separate records for boys and girls
 - Number of latrine visits (urination and defecation)
 - Number of students washing hands after latrine
 - Number of students washing hands with soap after latrine visit
- *Note: Children go home during 2-1/2 hour lunch break*

Original Research Design

Treatment Arm	# of Schools	Intervention	Baseline	KAP Survey	Paint	2 weeks	6 weeks	KAP Survey	3-4 months	6 months	KAP Survey
Control A:	6	Inconvenient HWS with soap, observe behavior once	X	S							
Control B:	2	Convenient HWS with soap, observe behavior for 6 weeks	X	S	X	X	X	S			
Treatment 1:	2	Nudges, but remove paint nudges after 6 weeks	X	S	X	X	X	S	X		
Treatment 2:	2	Nudges, observe for 6 months	X	S	X	X	X		X	X	S
Treatment 3:	2	As Treatment 2, but remove nudges after 4-5 months	X	S	X	X	X		X	X	S

X	Observation without NUDGES
X	Observation with all NUDGES
S	KAP survey

Percent of Students Washing Hands (Raw Data: HWWS/Latrine Visits)



Ordinary Least Square Regressions

Two Sets of Regressions

All Rounds

- 14 schools
 - 8 control
 - 6 treatment
- Separate estimates for girls, boys and all students
- “Dummies” for round 0 and 1
- “Dummy” for warning
- Selecting only cases where soap and water is available

Rounds 2 - 5

- 8 schools
 - 2 control
 - 6 treatment
- Separate estimates for girls, boys and all students
- Selecting only cases where soap and water is available

Regression Results

	All Rounds				Rounds 2 - 5			
	Girls	Boys	All Students	Signif./ p-value	Girls	Boys	All Students	Signif./ p-value
(Constant)	51.2	36.5	42.6	0.000	49.5	36.5	41.8	0.000
Nudges (Treatment Arms)	25.4	28.0	27.4	0.000	26.0	28.0	27.7	0.000
Have nudges been removed	3.7	1.2	1.5	0.669	4.9	1.2	2.1	0.042
Distance to handwashing place > 10 meters	-13.9	-6.8	-12.1	0.000	No controls with distance over 10 m			
Distance to HW * Nudge	-22.9	-17.5	-17.6	0.000	-37.9	-24.3	-30.1	0.000
Rain	-14.9	-7.5	-11.0	0.000	-7.2	-7.5	-7.6	0.000
Dummy for Round 0	75.9	71.2	79.5	0.000	Not applicable			
Dummy for Round 1	38.9	30.8	36.3	0.000	Not applicable			
Warning	62.5	52.6	54.7	0.000	Not applicable			

Highlights of the Results

Without Nudges (HW place close to latrine)

- Boys → 37%
- Girls → 51%
- All students → 43%

Increase due to nudges

- | | | | |
|----------------|------------------------|---|-----|
| ➤ Boys | → 28 percentage points | → | 65% |
| ➤ Girls | → 26 percentage points | → | 77% |
| ➤ All students | → 27 percentage points | → | 70% |

Distance to HW place > 10 meters

- HWWS frequency declines by roughly 1/3

Comparisons

- Vietnam mothers/caretakers → 25%
- Bangladesh school children w/o nudges → 18%
- Bangladesh school children with nudges → 74%

Sources: Chase & Do (2012) and Breibelbis et al (2016)

Policy versus Reality

Government Policy:

- All schools to have hygienic latrines with handwashing facilities
- Hygiene and handwashing is taught at an early age

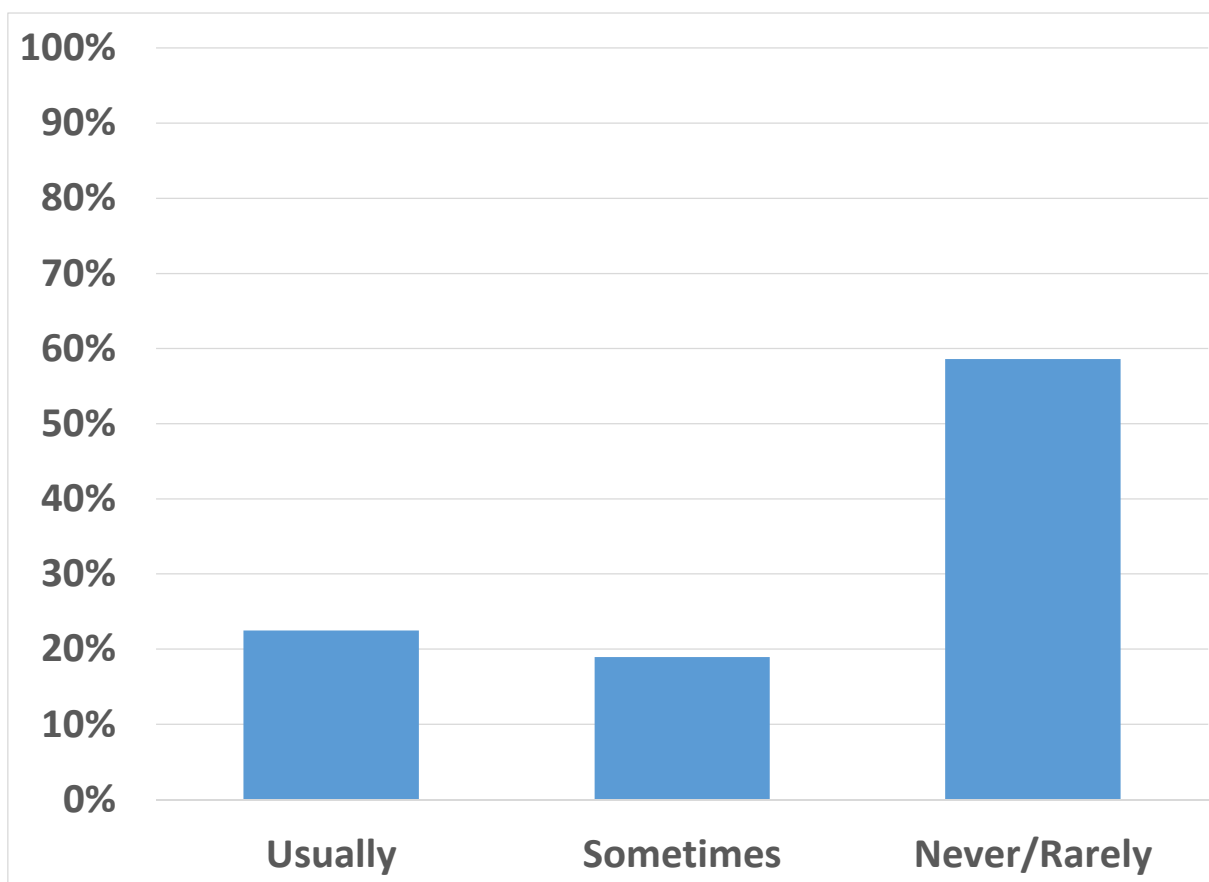
Survey of all 3,119 primary schools in 4 provinces

Students attending school with:

- Hygienic latrines → 85%
- Handwashing place → 73%
- HW place & soap usually available → 16%

*Taking into account schools where soap is sometimes available, we estimate that about **10%** of all primary school children wash their hands after visits to the school latrines*

Soap Availability at Schools with Handwashing Facility (Percent of students)



Conclusions

- The consistent soap and water availability is crucial to maintain the handwashing with soap behavior
- The handwashing place must be close to the latrine and convenient for kids to practice handwashing
- A second handwashing place can be located at the main school building to encourage the children to wash hands after playing in the dirt, etc.
- There should be a roof over the handwashing place to enable the children to wash hands also when it is raining (which happens often in Vietnam)
- Nudges have a significant impact on handwashing and should be used at all schools
- There should be a permanent solution for Nudge painting (especially on the foot path) to maintain the Nudge effect.

Further Information

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