Access to Handwashing with Soap Facility in Binduri District: A Post-sensitization Investigation of Drivers

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Presentation at the Online Conference IWRA 2021
8th June 2021

Presentation Outline

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Introduction

- Only 19% of the world's population practice HWWS after visiting toilet (Global Handwashing Partnership, 2020) and this is worse in developing countries yet achievement of SDG6 is associated with higher rates of HWWS (To et al. 2016).

- Considerable research has examined the status and determinants of HWWS facilities in healthcare settings and schools but its status at home in the community, especially in developing countries, remains unclear (Odo and Mekonnen, 2021).

- Toward sustainability HWWS practice and effectiveness, there is need to examine the determinants of HWWS behaviour at households (White et al. 2020) especially for post-intervention programmes.

✓ **Focus of this study**

Materials and Methods

➢ The study area

- ✓ Binduri District of the Upper East Region of Ghana
- ✓ District total communities - **177**
- ✓ Study population - **6188** households (HHs) in all the **127** communities

➢ Data collection tool(s)

- ✓ Structured HHs questionnaire

➢ Sample size selection and data analytical tools

- ✓ Sample Size **714**: determined using online Sample Size Calculator [Creative Research Systems, 2012 (equations by Jerrold, 1984)] recommended by Denscombe, 2010 and Limantol *et al.* 2016
- ✓ Fixed effect Logit regression model and associated marginal effects

Results

	(1)	(2)	(3)	(4)
VARIABLES	**Logit Coefficients**	**Marginal Effects**	**Logit Coefficients**	**Marginal Effects**
Gender (dummy)	-1.4012***	-0.147***	-1.618***	-0.1529***
	(0.478)	(0.045)	(0.464)	(0.041)
Education (dummy)	1.8354**	0.1930**	2.322**	0.2194**
	(0.889)	(0.085)	(0.997)	(0.084)
Age of Respondent (Years)	-0.7854***	-0.0826***	-0.774***	-0.0731***
	(0.164)	(0.012)	(0.166)	(0.012)
Age Squared (Years)	0.0077***	0.0001***	0.008***	0.0007***
	(0.002)	(0.000)	(0.002)	(0.000)

Robust standard errors in parentheses

**** p<0.01, ** p<0.05, * p<0.1*

Results

	(1)	(2)	(3)	(4)
VARIABLES	**Logit Coefficients**	**Marginal Effects**	**Logit Coefficients**	**Marginal Effects**
Household Size	-1.6889***	-1.7776***	-1.571***	-0.1484***
	(0.525)	(0.037)	(0.557)	(0.037)
Social Status/Responsibility (dummy)	1.7735***	0.1865***	1.510***	0.1427***
	(0.574)	(0.051)	(0.542)	(0.037)
Occupation (dummy)	1.3671***	0.1437***	1.635***	0.1545***
	(0.554)	(0.048)	(0.624)	(0.047)
Community Fixed Effects	*Yes*	*Yes*	*Yes*	*Yes*
Interviewer Fixed Effects	*No*	*No*	*Yes*	*Yes*
Constant	19.448***		17.424***	
			(3.806)	
Wald chi2 (7/56/70)	58.46***		118.96***	
Log pseudolikelihood	-105.0907		-95.345	
Pseudo R^2	0.39		0.44	
Observations	714	714	714	714

Robust standard errors in parentheses

**** p<0.01, ** p<0.05, * p<0.1*

Discussions

- Females are the drivers in HHs regarding public health concerns (Galasso et al. 2020), and good hygiene practices (Amoah and Addoah, 2020)
- These prompted further examination of gender and access to HWWS; and highly statistically significant relationship exists (ME: -0.1529).

- Owing to health implications, older people have a relatively higher tendency in taking health related issues more serious, thus HWWS. - associated marginal effect of 0.0007.

Discussions

- **Age square:** positive and statistically significant relationship with HWWS (ME: 0.0007) - age doubles, respondents more likely to access HWWS.
- **Turning point**: below 52 years, respondents less likely to HWWS, but at 52yrs+, respondents more likely to have the HWWS.

- If a household size rise by 1 person, the probability to have HWWS decreases by 14.84% - counter intuitive
- Respondents with occupation are about 15.5% more likely to access the HWWS compared to those without, i.e. purchasing power key to ownership decisions (see Amoah, 2017)

Conclusions & Recommendations

- Future Community Level Promotions of HWWS are likely to be most successful if they target more of people aged below 52 years.

- Further studies would be needed to explore factors influencing the low adoption of HWWS by people aged below 52 years.

References

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