WASH and schistosomiasis: Focal solutions for a focal disease

Fiona Fleming
Director – Research and Innovation
On behalf of Yael Velleman

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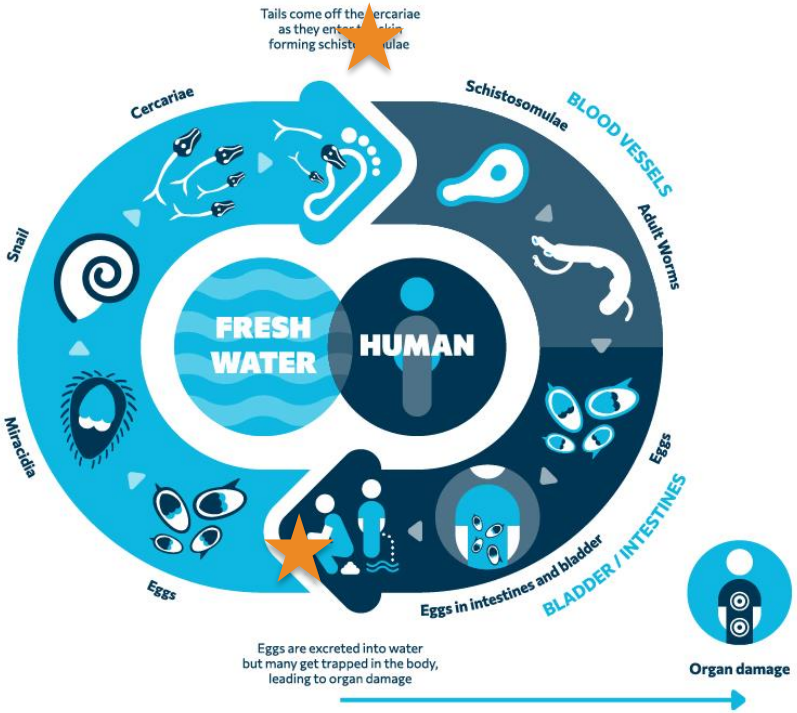
WASH and schistosomiasis – the basic link



Transmission:

- Lack of sanitation leads to contamination of surface water with parasite eggs

Exposure:

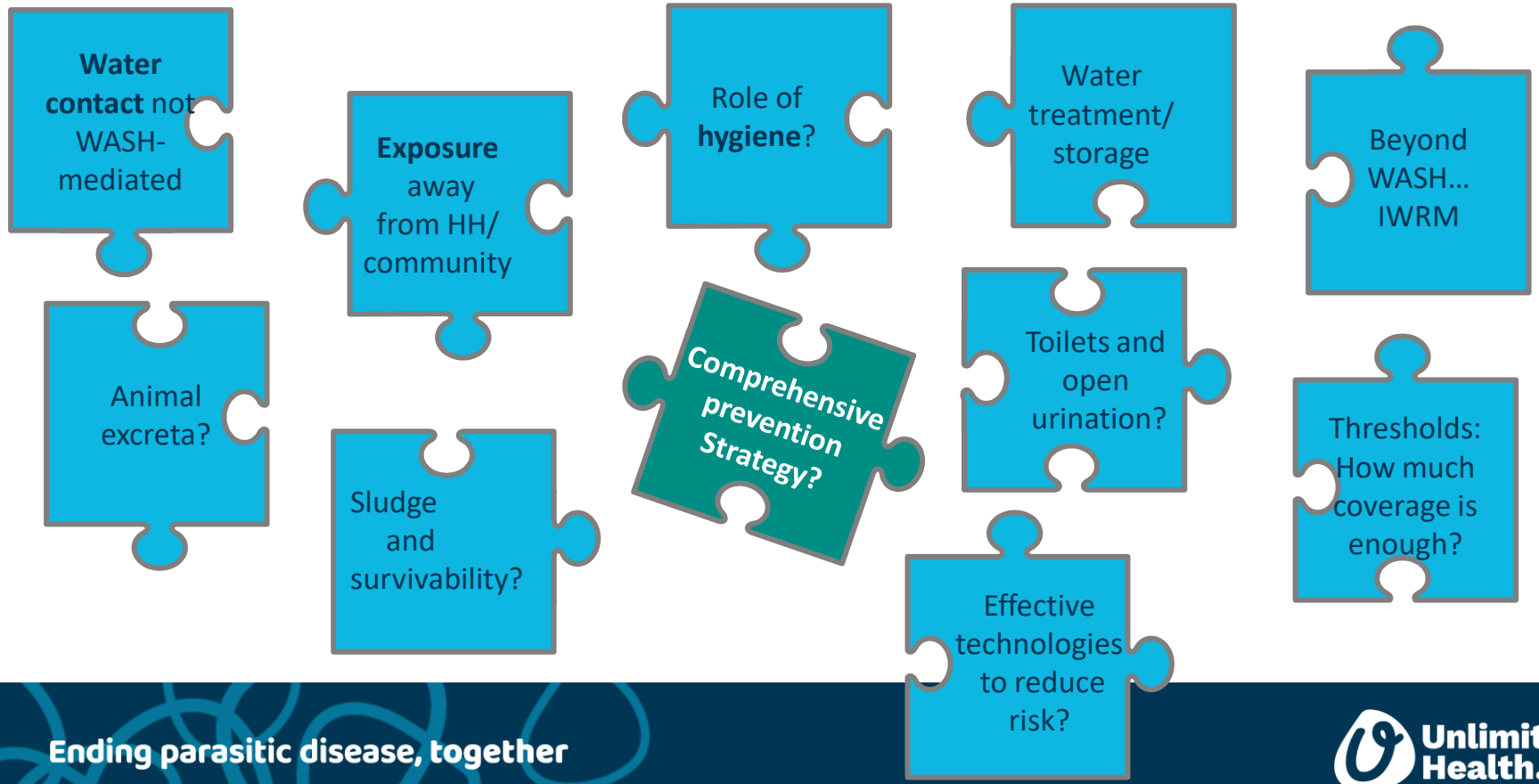
- Lack of water supplies for drinking, domestic use etc. leads to contact with contaminated water

Transmission is driven by the archetype

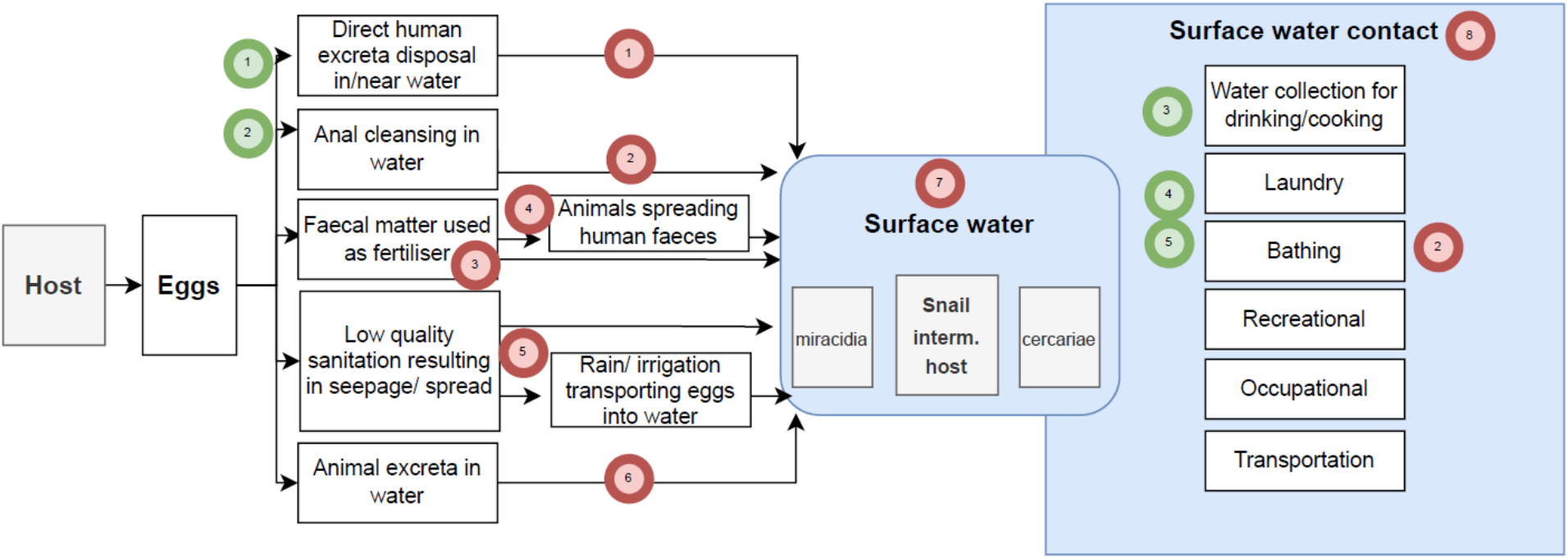
This means:

- What interventions 'work' in one context may not in another – *even* in the same district...
- Doing too much – i.e. trying to capture every possible pathway/person is also problematic – overwhelming audiences, watering down messages, ineffective use of resources...

The puzzle of SCH and WASH



Organising the puzzle… where does WASH fit?



Draft framework: SCH/STH TAG WASH sub-group

So, what do we do? Start with the solution...

Build swimming pools!

Give everyone toilets!

Tell people not to go in the water!

Find a better technology!

Build laundry facilities and showers!

Sink more boreholes!

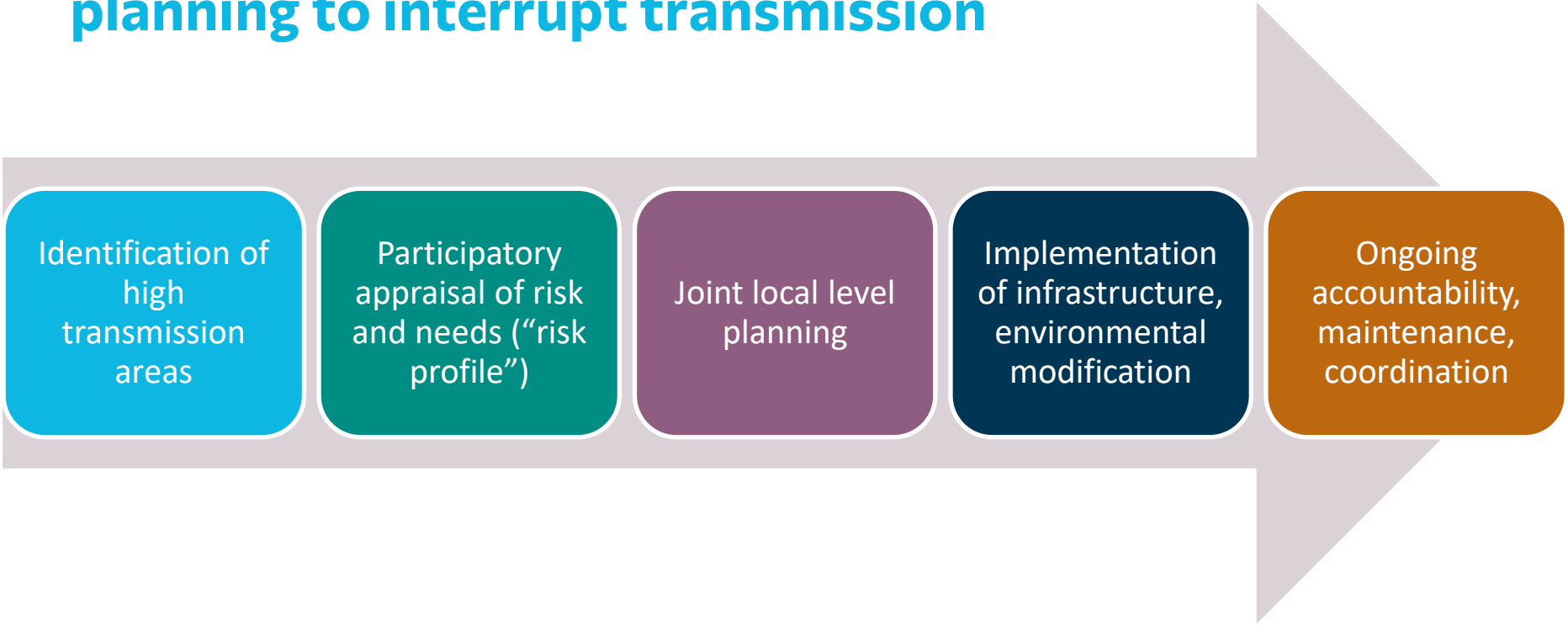
Get rid of the snails!

...Or, by defining the right questions (and asking the right people)

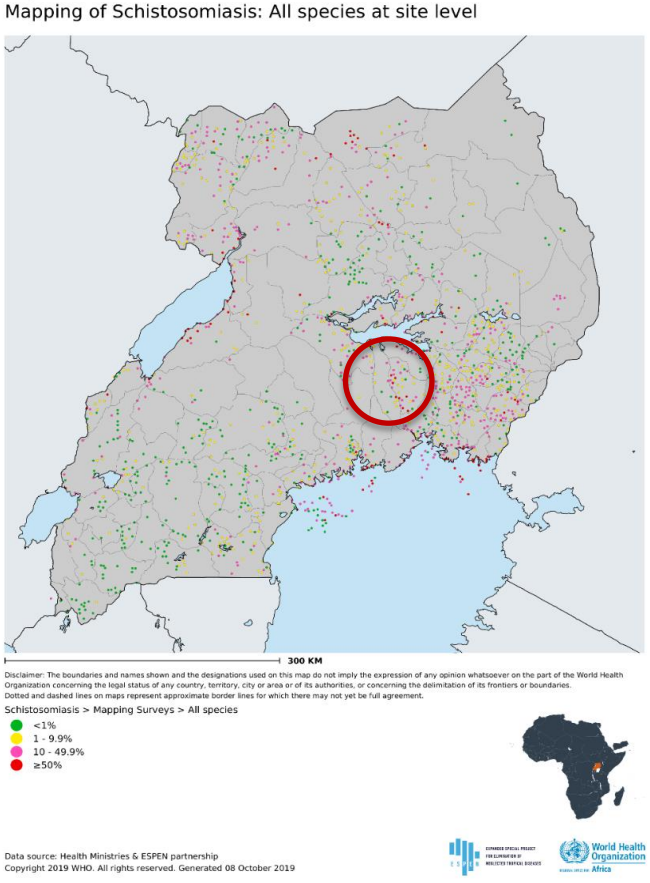
- Which context-specific interventions are required to achieve the necessary levels of access to infrastructure, and reduction in transmission and exposure?
- What are the most effective behaviour change approaches? And what is the enabling environment needed?
- What do people want?

Proposed approach to water, sanitation and behaviour change

Approach to local SCH-sensitive water & sanitation planning to interrupt transmission



Participatory project – Kamuli, Eastern Uganda

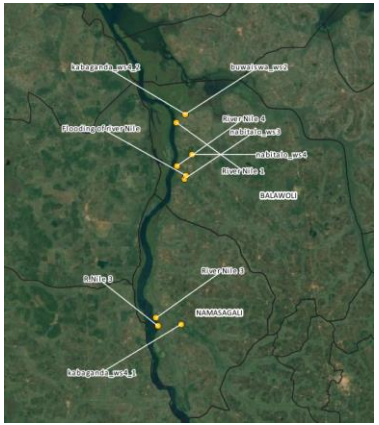


Pilot: Community-specific risk profiles

Where is the risk? **Who** is at risk? **How big** is the risk?

→ Community map, snail mapping, water contact site observations, FGDs

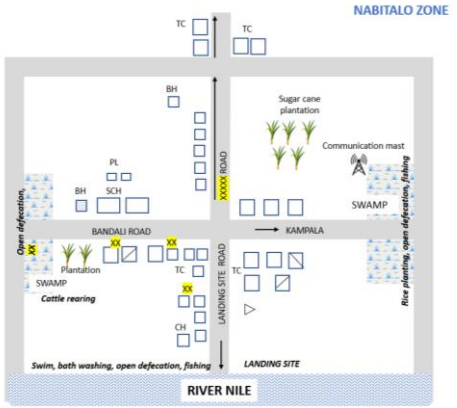
→ **Community risk profiles**



Total water contact time for the most frequent behaviours at all observation sites

Community	Water contact site	Risk				Behaviours								
		Snails	Infected	Environmental contamination	Risk profile (low/medium/high	Fishing	Fetching water	Washing clothes	Load boats and travel	Bathing and swimming	Washing vehicle	Mining sand	Agricultural activities	Collect snails earthworms
Buwaiswa	Kibuye landing site; Buwaiswa	Yes	Yes	No	High	66111	22000	26200	64	42080	770	0	0	0
	Nakabale swamp; Buwaiswa	Yes	Yes	Yes	High	5724	0	0	0	38	0	0	0	0
Kabaganda	Kalama landing site, Namasagali	Yes	No	Yes	Medium	2402	167	148	90	396	89	0	0	0
	Nsangabiyire landing site, Namasagali	Yes	Yes	Yes	High	855	130	510	0	2060	295	1260	0	0
	New Landing site in Namasagali College	Yes	No	No	Medium	10	38	96	600	297	0	30	0	0
	Nalwekomba Swamp	No	NA	No	Low	240	0	365	0	120	60	0	2660	0
Nabitalo	Nabitalo A Landing site	Yes	No	No	Medium	679	65	0	330	304	200	0	0	60
	Nabitalo B Landing site	Yes	No	No	Medium	400	108	0	0	108	0	0	0	75
	Nabitalo A swamp	No	NA	No	Low	1000	318	150	35	416	102	0	380	300
	Nabitalo B swamp	No	NA	No	Low	1378	513	212	210	690	75	0	0	1030
	Total contact in minutes					**78799**	**23339**	**27681**	**1329**	**46509**	**1591**	**1290**	**3040**	**1465**

Pilot: Mapping the risk



Pilot: Action planning

Proposed actions/ solutions	Considerations and caveats
Latrines	• There should be a public latrine at the landing site • Shared toilet blocks, one for each zone (A and B), with user fees for management and cleaning
Livelihoods	• Fish pond would help divert people from the lake. Would need management to avoid snail infestation
Water supply	• Boreholes (although breakdowns happen and the water is hard) • Water used at home should be treated, and detergent should be made available in health centres • Preference for piped water with multiple outlets near the home, using the river as the source. Strong willingness to pay as people pay user fees anyway
Designated swimming area	• [This option was not discussed. The landing site visited did not seem appropriate for this solution either due to the characteristics of the site]
Laundry	• When asked whether people will use shared laundry facilities instead of river water, which is free, participants felt that they would avoid the river water if they knew it was dangerous and they had alternatives.
Gumboots and gloves	• To protect fishermen. Fishing cannot be stopped • Use of PPE is socially acceptable. However, people are reluctant to pay for it
Health education	• Children are most vulnerable because they fetch water and take the cattle to be watered. Schools should be teaching them about the disease • Mass sensitisation of the whole community, empowering the VHTs

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Pilot: Planning with WASH and Health stakeholders

Government services

- **Water Supply:** small-scale piped water scheme using river water. Affordable tariffs, filtered water. Serve all domestic purposes to reduce water contact.
- **Behaviour change communications:** Including at schools and mass sensitisation
- **Sanitation:** Provision of shared and public toilets – sufficient size, resilience to flooding, inclusive. User fees for O&M.

Community action

- **Designated swimming areas:** child friendly, use of sand, play areas, sanitation. Involvement of leisure industry
- **O&M of sanitation facilities:** involvement of beach management committee
- **PPE:** involve entrepreneurs

Current project: Delivering the action plans

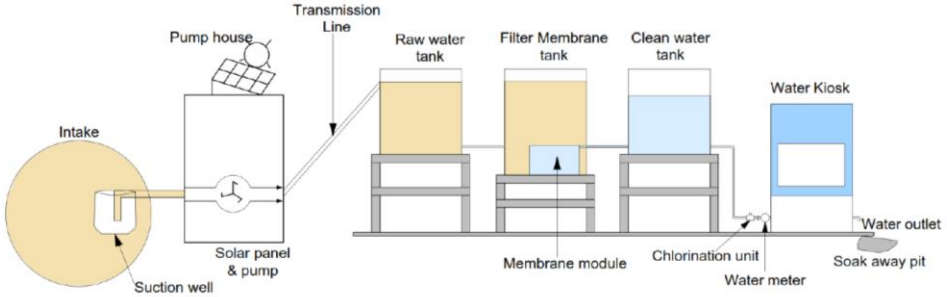
- **Baseline survey:** establish current levels of **access to water supply and sanitation infrastructure**, as well as levels of **contact with contaminated surface water**

- **Water supply:** Supporting MWE to implement **water supply system** based on river water due to community preferences and practicality

- **Community environmental adaptation testing:** Reduction of **snail-breeding habitat/ creation of safe(r) water contact sites** for recreation/livelihoods

- **Sanitation:** Support MWE-led programming, increase **access to technologies/skills**

- **Behaviour change communication:** Support MoH to engage **traditional leadership and undertake health promotion**



Gravity-diverted Membrane Filtration system, developed by EAWAG and tested in Uganda

Takeaway messages

- People know what happens in their **community** and what is needed for improvement – **asking them has to be the starting point**
- There are important differences in the **environmental, social and economic conditions between communities**, that affect the risk of SCH in different ways
- People do what they do for **valid reasons** – telling them to do otherwise without addressing the core issues won't make a difference. **SCH probably isn't their top priority!**
- Not all pathways can be mitigated; important to **prioritise interventions based on risk size as well as feasibility** → importance of the Community SCH Profiles and the Community Action Plans
- **Government is ultimately responsible for service delivery** – any intervention should be done in support of their plans and priorities, and reinforcing their accountability to communities

TAG SCH-STH WASH sub-group update

- Key deliverable: **Position paper** on role of WASH in SCH/STH transmission, incl. preferred practices for research and programming, role of manmade infrastructure in risk of SCH

→ *Status: Conceptual frameworks, paper outline*

- **Scoping reviews:**

→ WASH and the transmission of SCH and STH – *data extraction in progress, to be published separately [Secor, Straily, Braun, Velleman]*

→ Manmade infrastructure and SCH transmission – *In progress [Sule]*


Thank you for listening!
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