

Linking WASH, environmental enteric dysfunction and stunting in rural households

Tari Bowling

University of Queensland, School of Public Health

AUSTRALIA



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Water, Sanitation & Hygiene Conference 2018



Collaboration for Universal WASH

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Overview

- Brief intro
- Household-level cleanliness indicators
- Guatemala study findings – 2017
- Lao PDR study – 2018
- What we need now

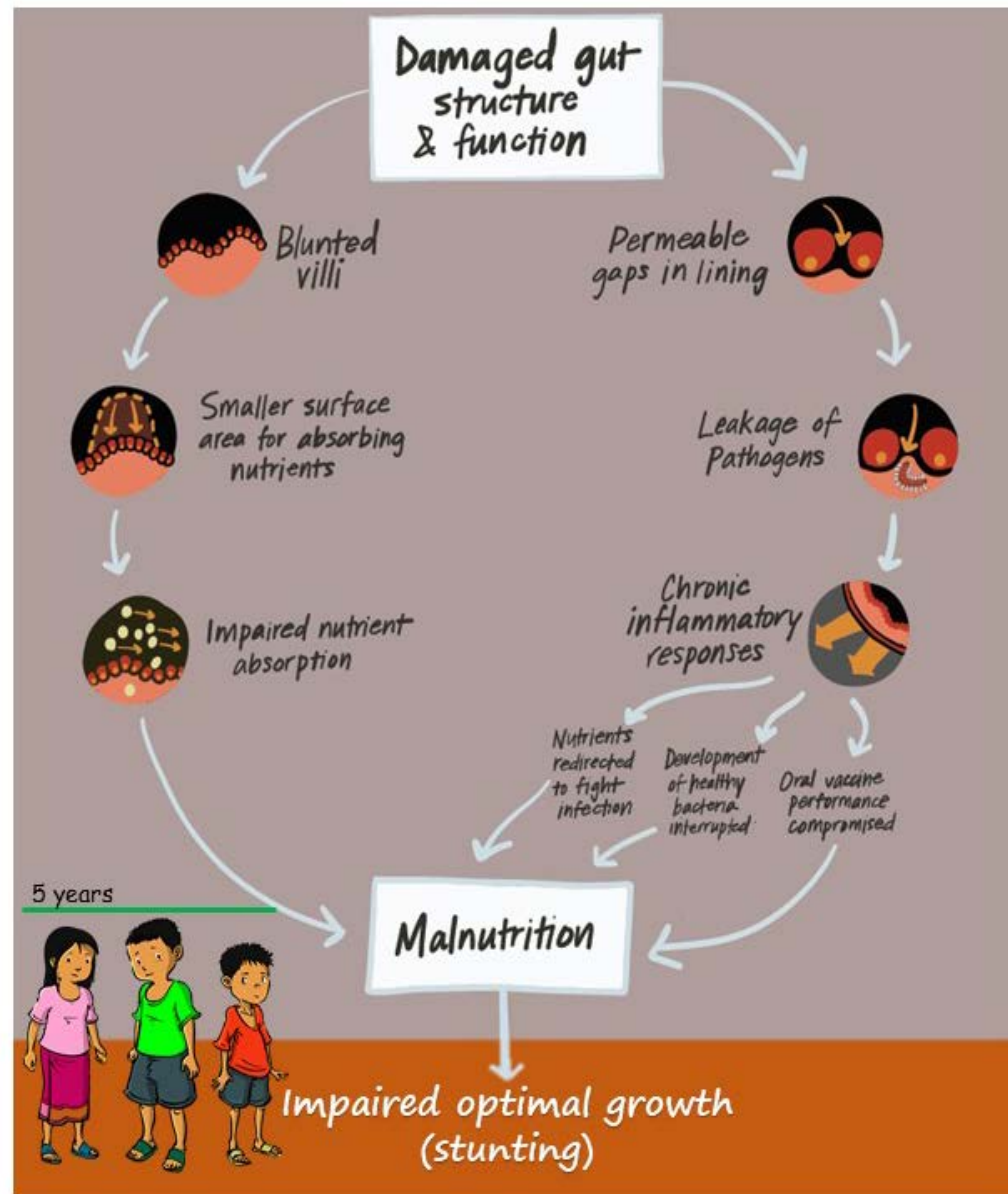
Stunting

- 166 million children under the age of 5 were stunted in 2016
- Stunting is THE most prevalent outcome of undernutrition
- Global targets set to reduce stunting in children under 5 by 40% by 2025
- Traditional nutrition interventions e.g. micro-nutrient supplements, breastfeeding promotion
- Nutrient supplements shown to reduce stunting only by one fifth (Walker et al., 2013)
- If global trends continue, the 40% target will not be achieved

WASH and Stunting – what do we know?

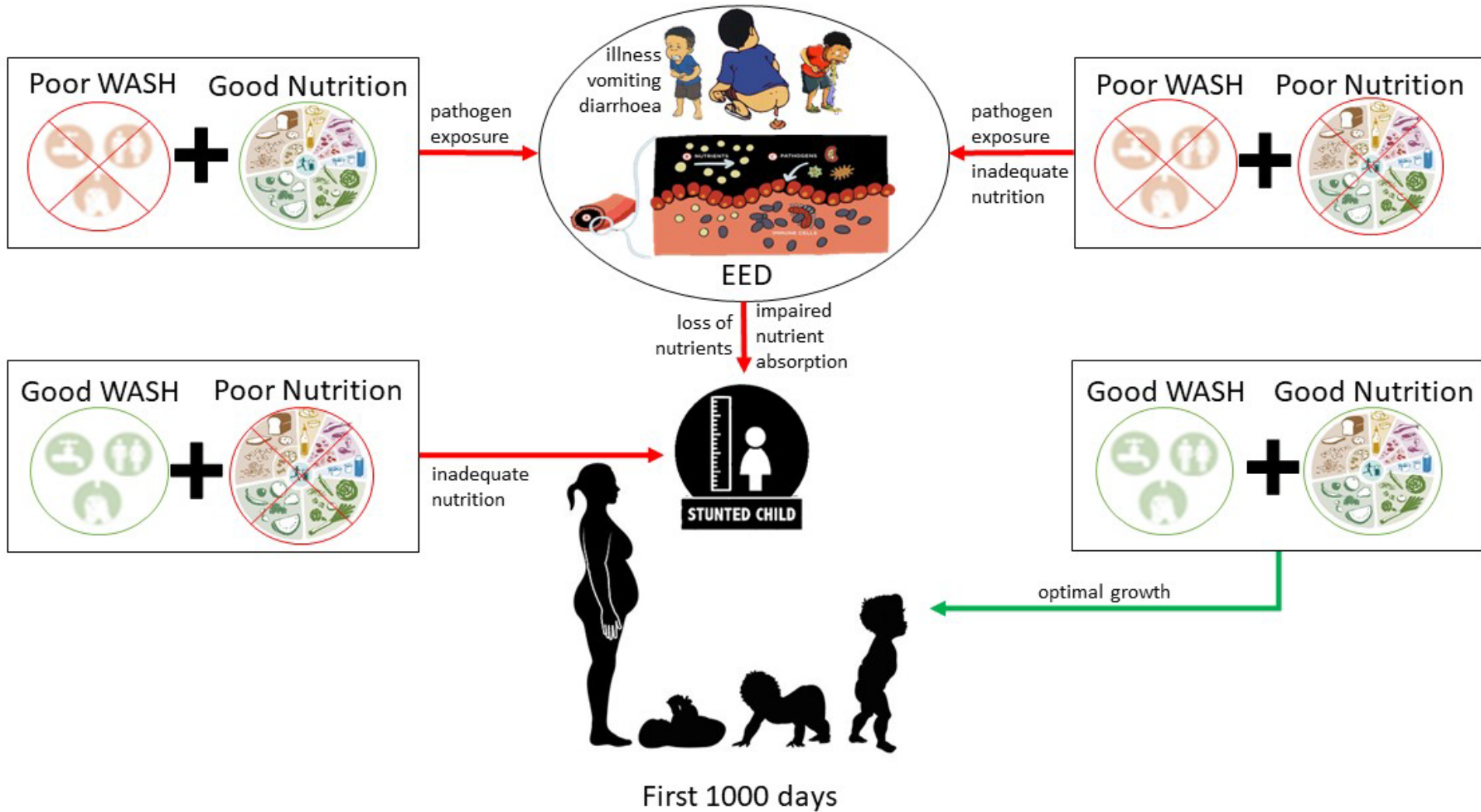
- Poor household WASH conditions an underlying cause of undernutrition
- Poor sanitation attributed as the second leading cause of stunting worldwide (Danaei et al., 2016)
- Multifaceted problems crossing biological, social and environmental spheres
- Environmental enteric dysfunction (EED) - biological and environmental

Environmental Enteric Dysfunction (EED)



- AKA environmental enteropathy (EE) or tropical enteropathy
- **Asymptomatic**, hard to diagnose, strongly associated with stunting
- Occurs when harmful pathogens are ingested on a regular basis over a long period of time
- Leads to long-term gut damage
 - Small intestine villi damaged
 - Impaired nutrient absorption
 - Pathogens leak through gut lining
 - Chronic inflammation
 - Reduced nutrients for body
- HH's with poor WASH have higher incidence of EED

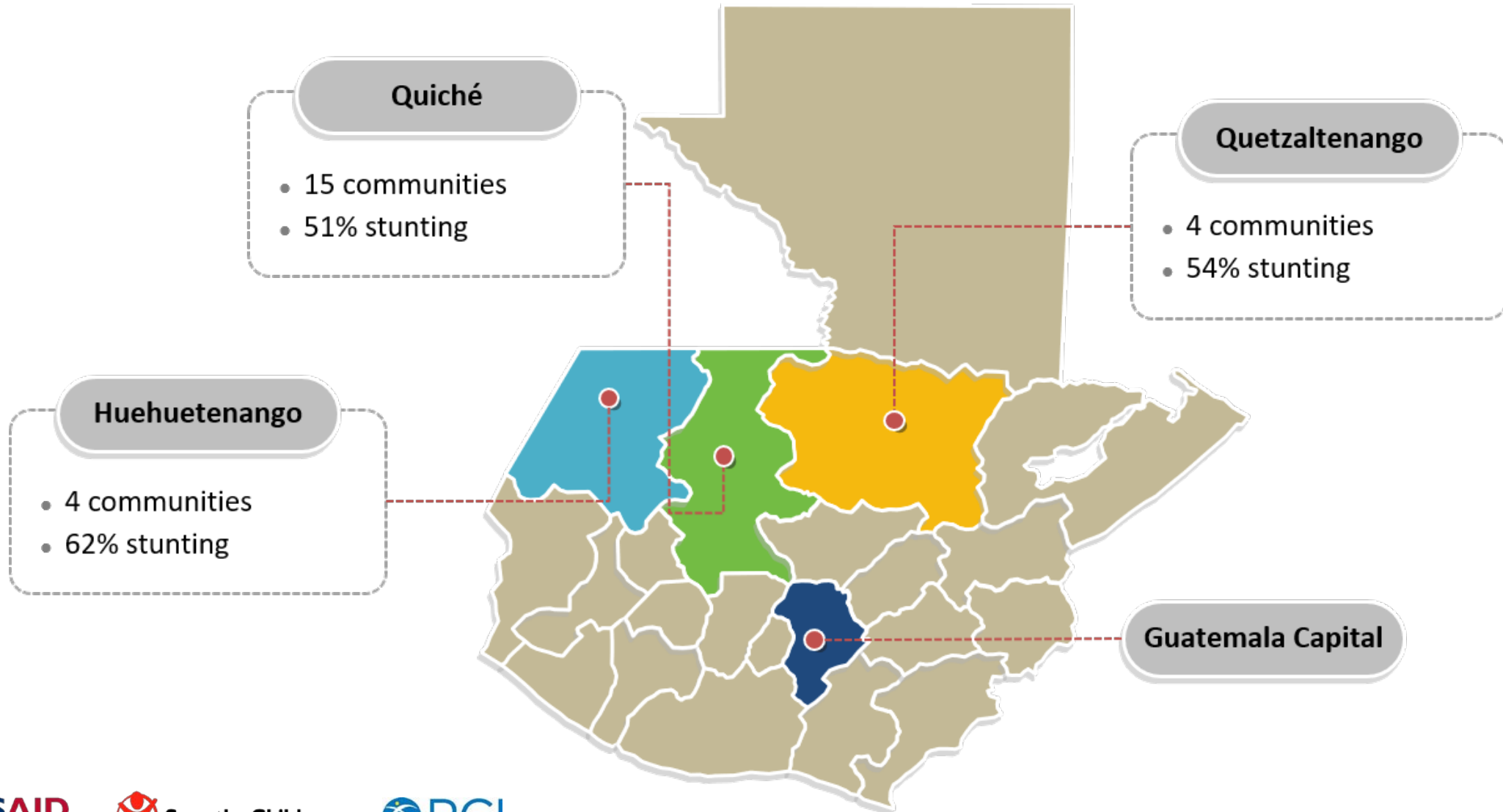
WASH & Nutrition



Household-level Indicators

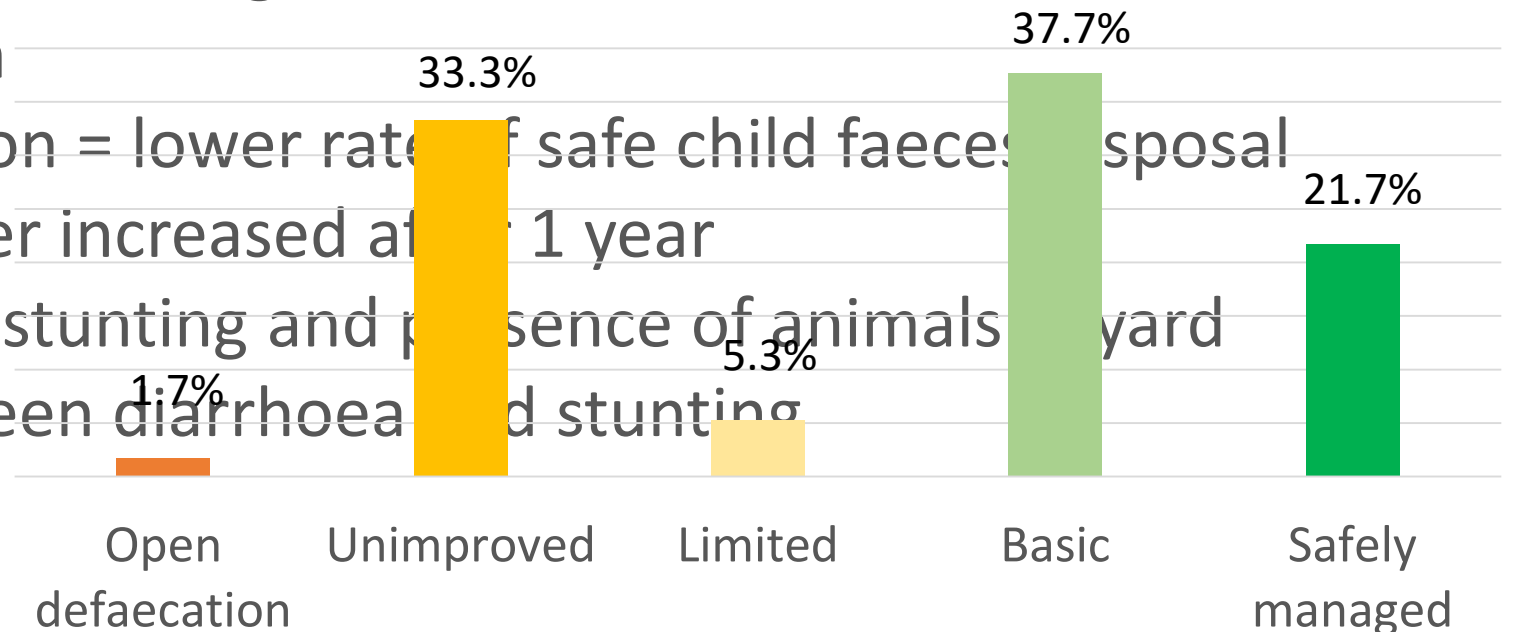
- Handwashing after defaecation, and before food preparation and feeding children
- Faeces disposal (human and animal)
- Child environment
- Clean drinking water
- Food cleanliness/ hygiene
- Neighbouring households

Guatemala Study – 300 Households

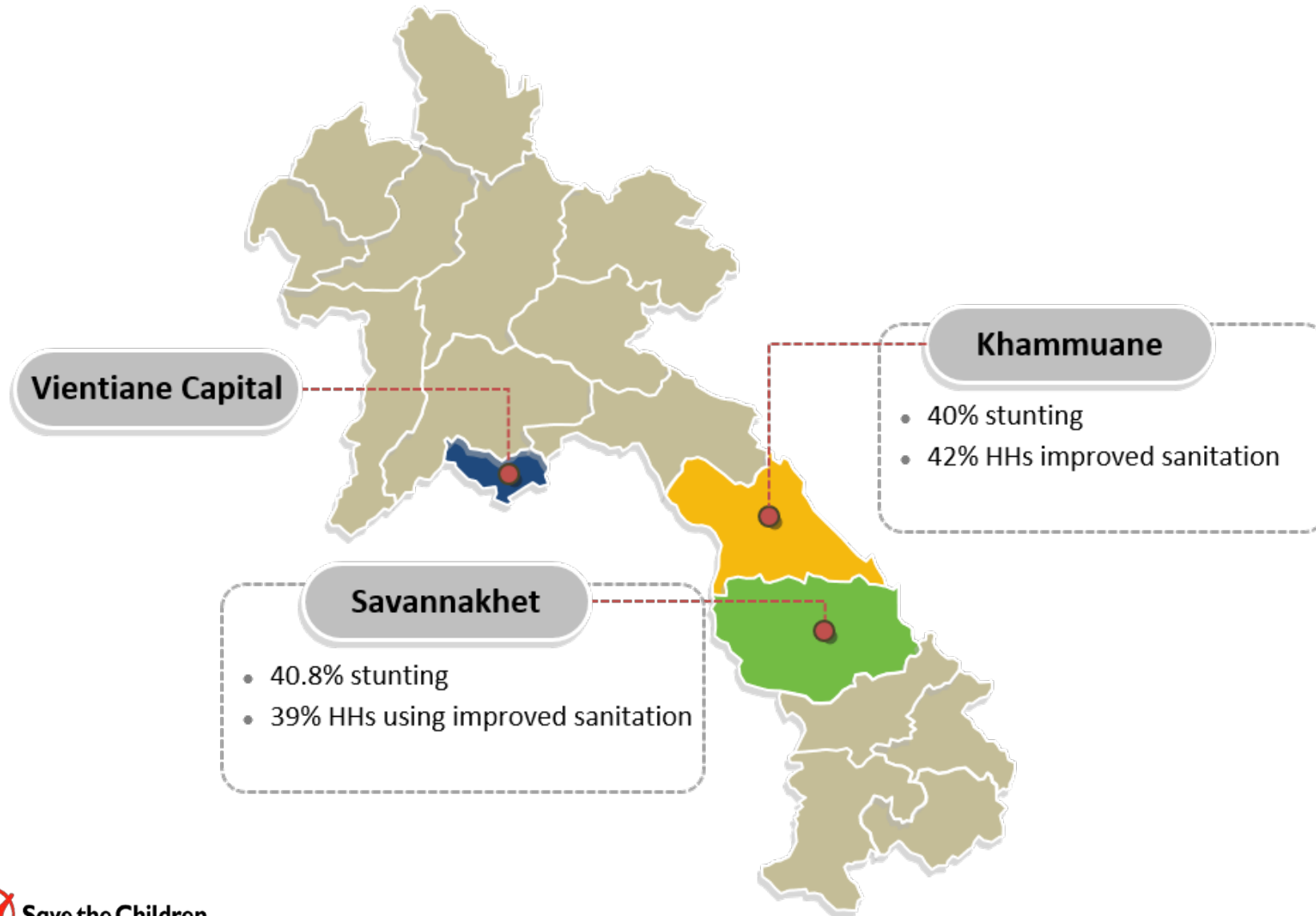


Guatemala Findings

- Number of children under 2 years in household
- Knowledge of good handwashing practices 55 – 60%
- Knowledge of sanitation, drinking water, child environment 13 – 30%
- Sanitation coverage high
- Safely managed sanitation = lower rate of safe child faeces disposal
- Exposure to faecal matter increased after 1 year
- No correlation between stunting and presence of animals in yard
- Strong correlation between diarrhoea and stunting



Next steps: Lao PDR – 2000 Households



What We Need Now

- Long-term, sustainable policy and national strategies integrating WASH and nutrition
- Actively facilitate and promote collaboration between CSOs, government departments, private sector, community groups/leaders, and all of the above
- Donors invest in nutrition intervention that integrate WASH
- RESEARCH – evidence based studies to fill the knowledge gap

Thank you, Gracias, ຂອບໃຈ

tari.bowling@uqconnect.edu.au

Skype: taribowling



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