

Assessing the Effectiveness of Container-Based Sanitation (CBS) in Cap Haitien, Haiti



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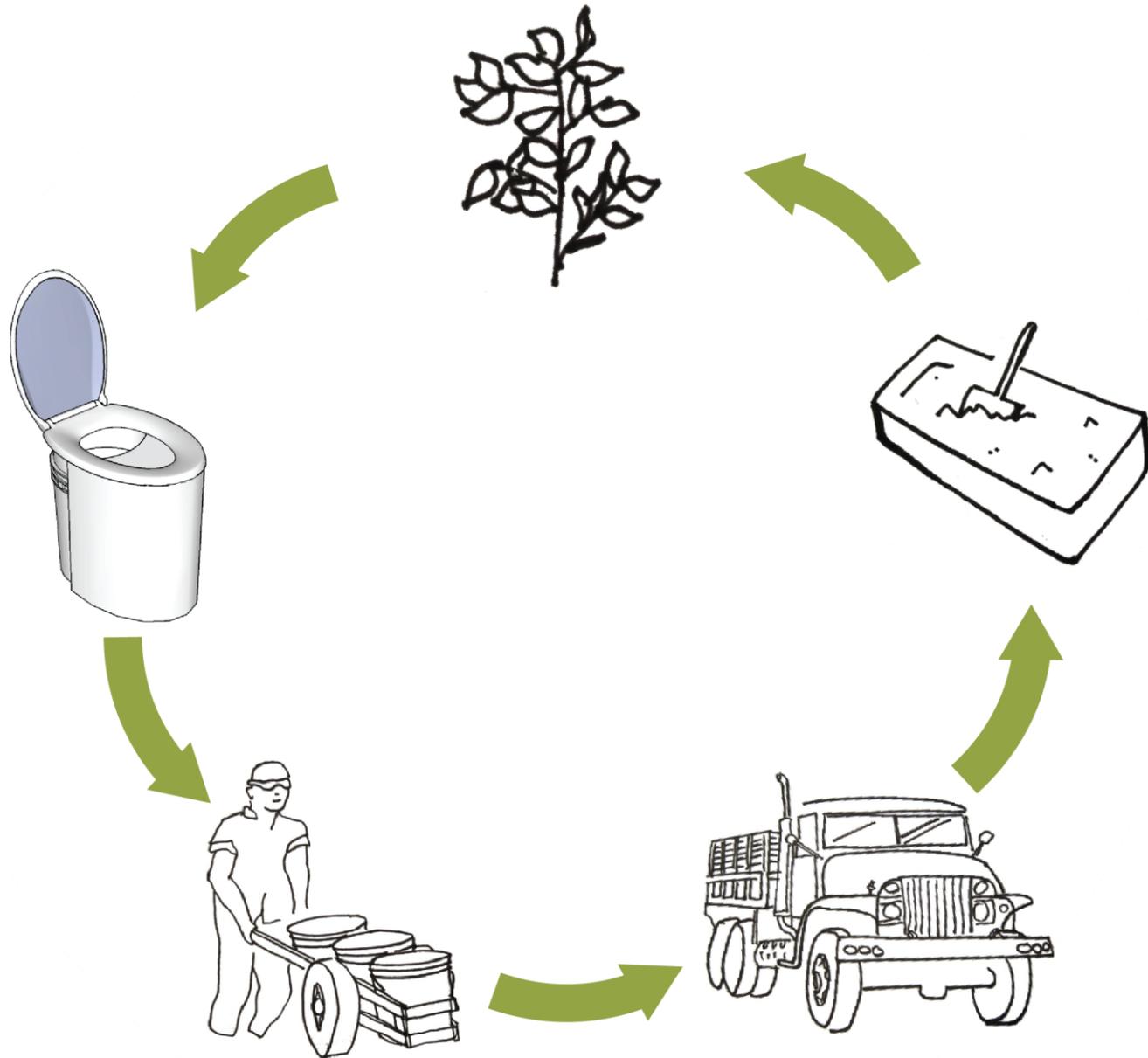
Conventional Approaches Often Inadequate



Flying Toilets



Open Defecation



Implementing CBS Service in Cap Haitien, Haiti

Cap Haitien



DIGNITY • TRANSFORMATION • GROWTH

Shada

Illegal Settlement

~Sea Level

No roads

No sewer

No piped water system

3 Public Toilets



Public Toilets:

Free to use

Open 5:00-22:00

Paid Attendant











Evaluating the Service

135 toilets

How much waste is produced,
where, when?

Baseline/Endline Survey
Public Toilet Observation

How much are we capturing?

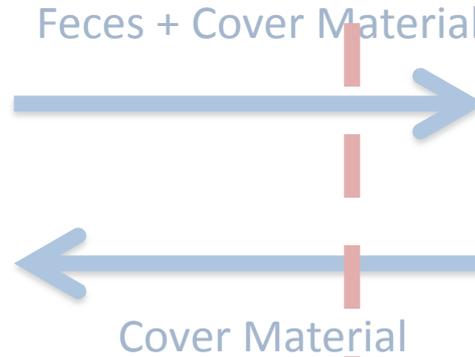
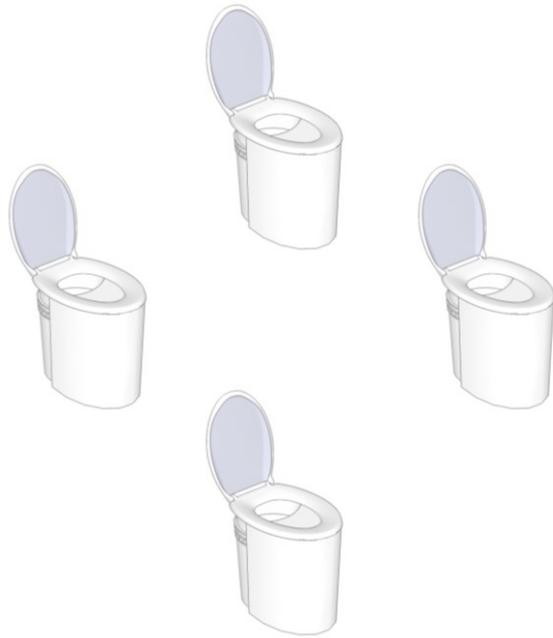
Operations tracking

At what cost?

Expenses tracking



Operations Tracking



$$\dot{M}_{feces,in} = \frac{\sum M_{Total Solids,in} - \sum M_{Cover Material,out}}{t_{collect}}$$

Public Toilets:

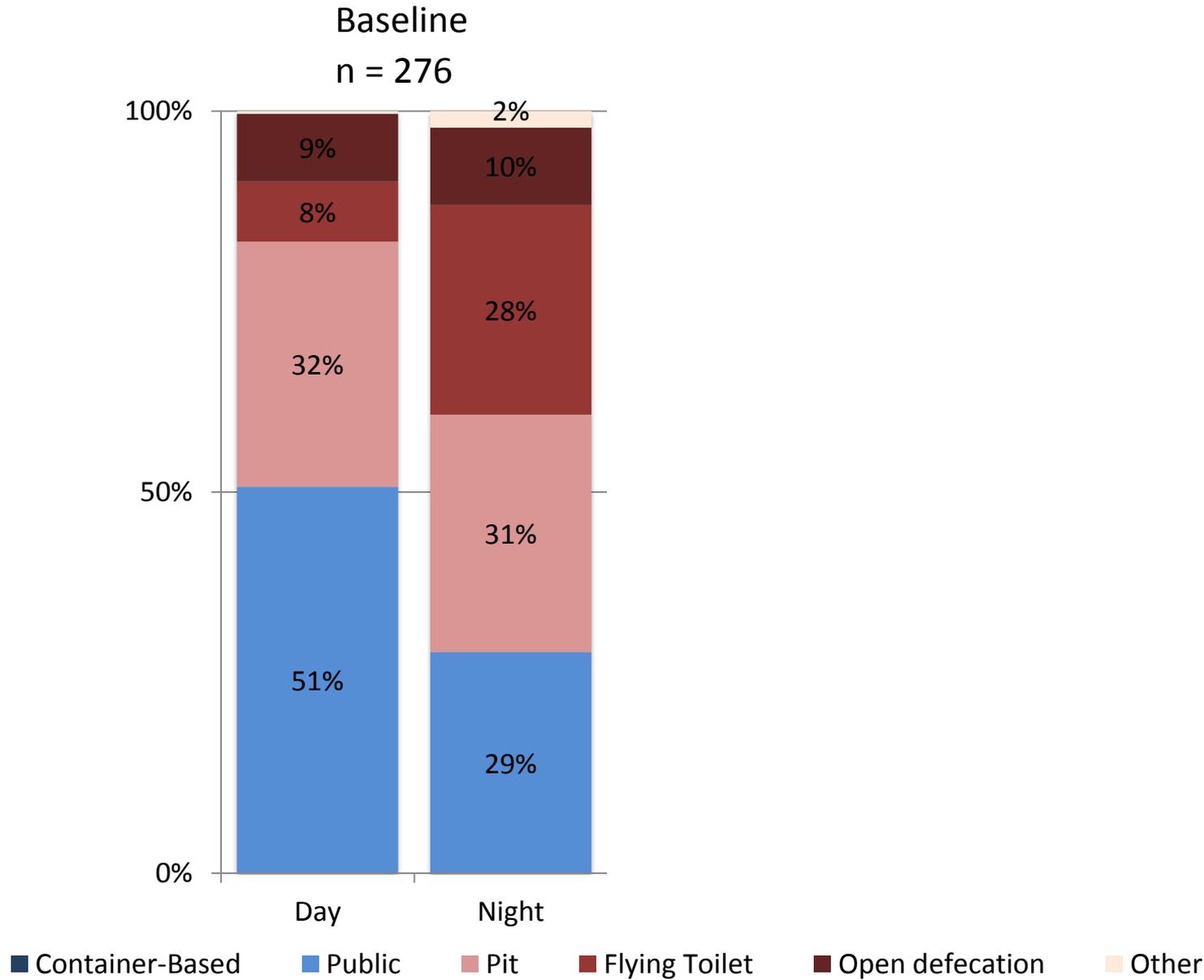
15 Days:

~1364 users/day

163 g/defecation



Where, When is the Waste Produced?



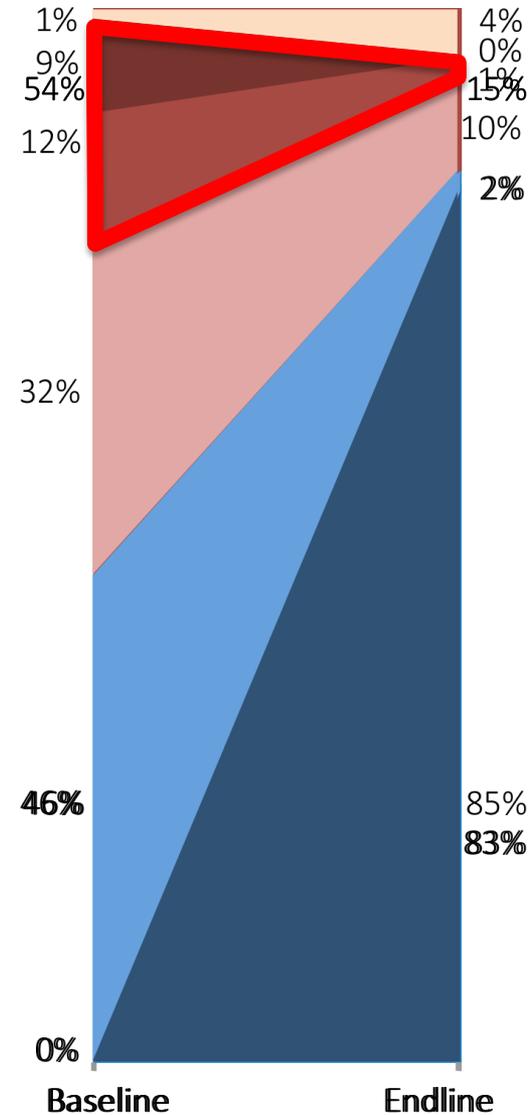
HH Service Capture Rates

Managed Feces:
650 kg/week

Pilot Costs:
\$0.96/kg (household)
\$0.66/kg (public)

vs.

\$0.14-\$0.46/kg sewerage



■ Container-Based
 ■ Public
 ■ Pit
■ Flying Toilet
 ■ Open Defecation
 ■ Other

BILL & MELINDA
GATES *foundation*



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