

Designing a mobile app to support & evaluate nutrition behaviour change



catalpa

**A non-profit startup
using design, tech &
innovation to create
social change.**

catalpa

We work in Timor-Leste, Myanmar and Papua New Guinea across nutrition, education, agriculture, governance and maternal and child health.



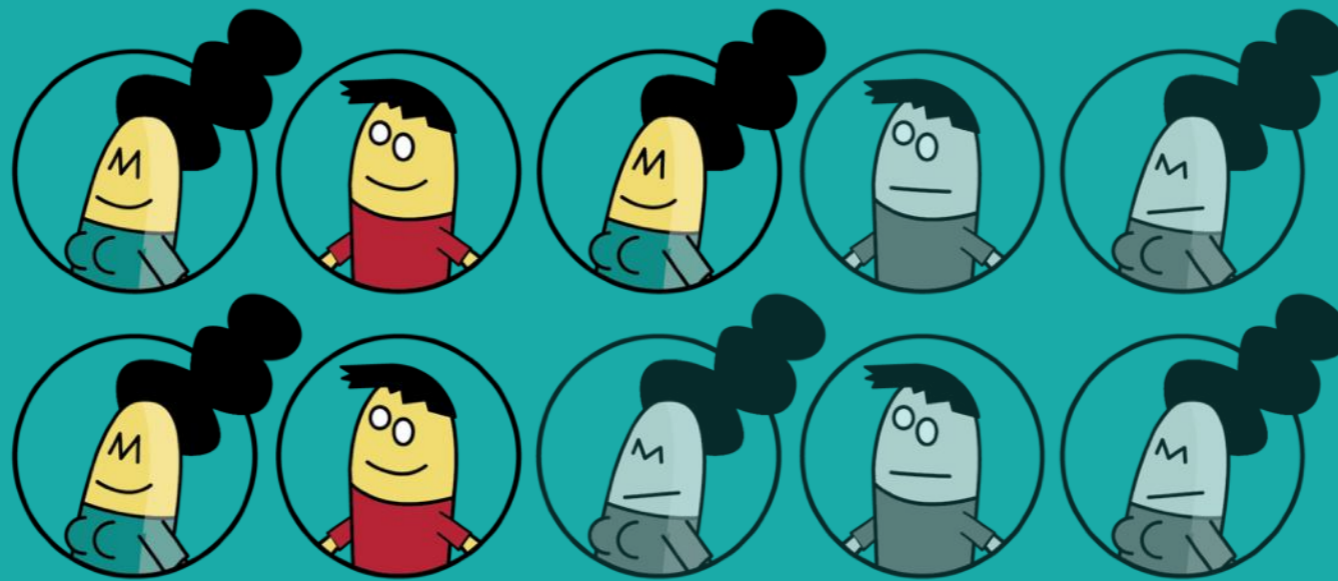
Multi-sector nutrition

Reducing stunting in children under two in Holarua, Timor-Leste

Holarua is a small, rural and mountainous community (Suku) with around 1,000 households (7,000 people)

Stunting in Timor-Leste

Stunting is low height for age



Over 50% of children under five in Timor-Leste are stunted.



Learn less



Earn less



Health issues

Components

Strengthening **nutrition capacity** across partners.

Working together to improve a range of **nutrition promoting behaviours**.

Using **innovative technology** to foster multi-sector collaboration.

Hamutuk partners

+20



GOVERNMENT PARTNERS

- Manufahi - Municipal Administration
- Ministry of Agriculture and Fisheries
- Ministry of Education
- Ministry of Health
- Ministry of Public Works
- Ministry of Social Solidarity
- National Council for Food Security, Sovereignty and Nutrition in Timor-Leste (KONSSANTIL)

NON-GOVERNMENTAL ORGANISATIONS

- Alola Foundation
- AGMF (Asosiasaun Grupu Maneja Fasilidade)
- Cooperativa Café Timor (CCT)
- Feto Asaun ba Sustentabilidade (FAS)
- Grupu Kilbur Feto Malu (GKFM)
- Health Alliance International (HAI)
- Luta ba Futuru (LBF)
- Luta ba Mudanza (LBM)
- Marie Stopes Timor-Leste
- Mercy Corps
- Ra'es Hadomi Timor Oan (RHTO)
- TOMAK - Farming for Prosperity
- WaterAid
- World Fish

A range of behaviours

18 nutrition promoting behaviours



Improving infant & young child feeding



Drinking safe water



Maintaining a diverse diet



Spacing births by at least two years



Keeping girls in school



Washing hands with soap

Our design challenge

**How can we leverage
collaboration to
increase coverage and
exposure of targeted
BC content?**

What we know

The current context

- Stunting can't be addressed by a single sector alone
- Global evidence shows breaking the inter-generational cycle of stunting requires collective action targeting all of its causes

What we know

Where's the opportunity?



- There is a large number of partners delivering nutrition-sensitive interventions for households in Holarua
- There are many community-based workers with existing relationships with households.
- Can we use technology to make every opportunity count?
- Can we make collaboration a default behaviour?

Mobile app

**An app for
integrated frontline
service delivery to
target, deliver &
evaluate SBCC**

Catalpa's approach

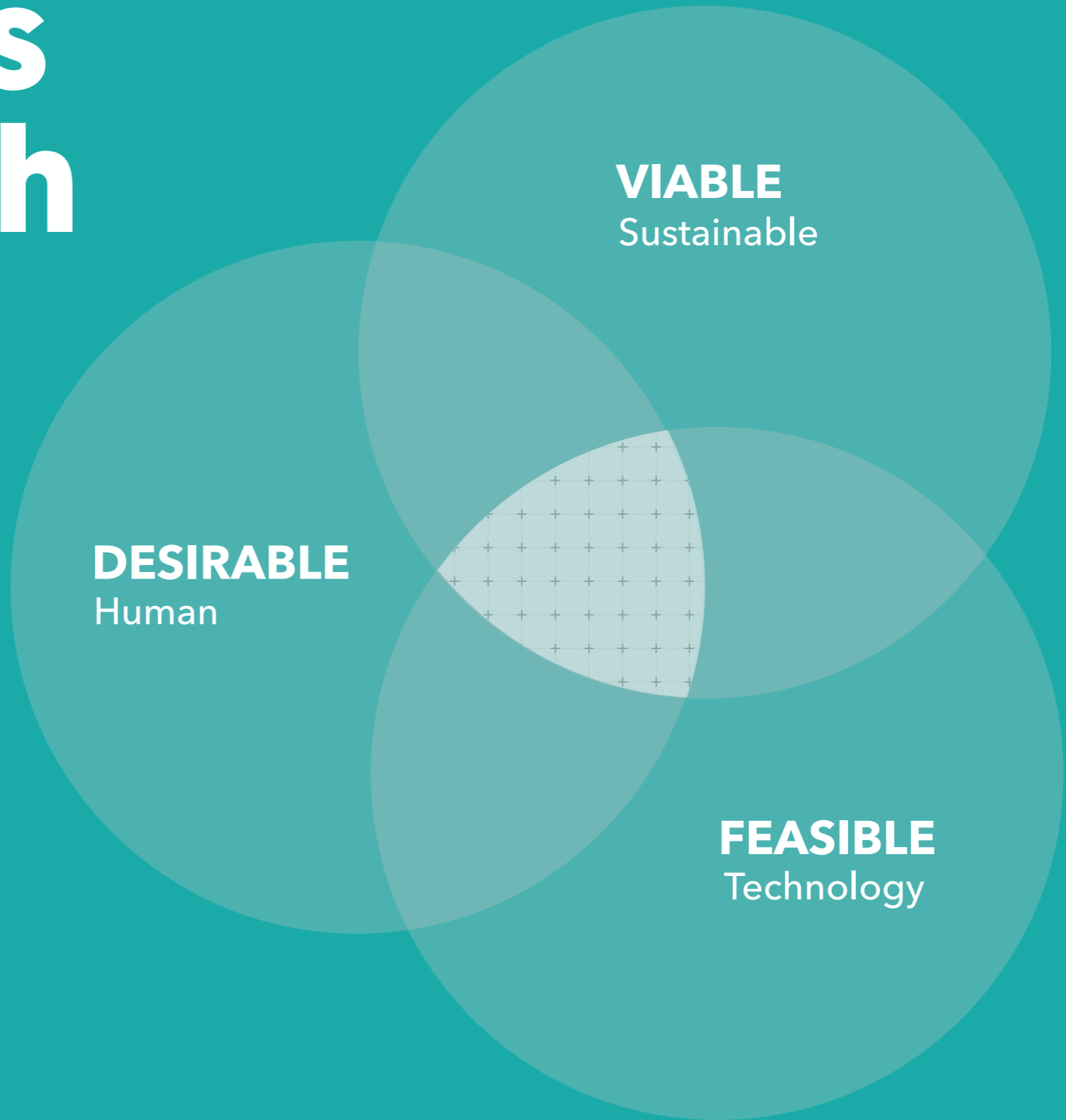
We start here



DESIRABLE
Human

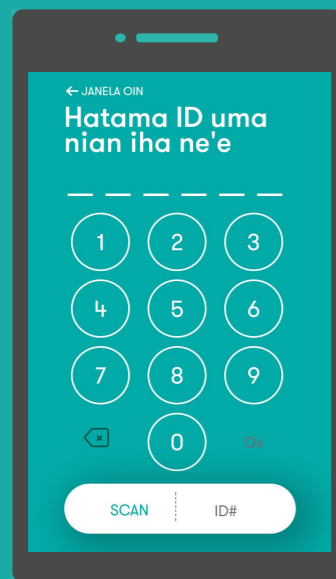
VIABLE
Sustainable

FEASIBLE
Technology

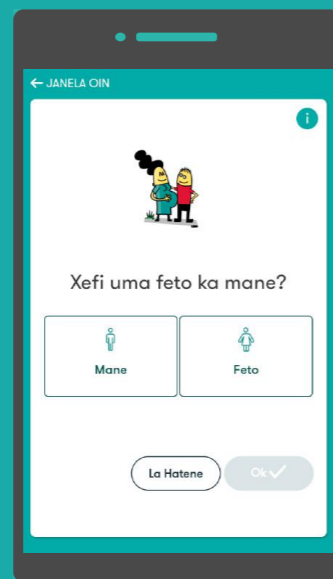


A snapshot

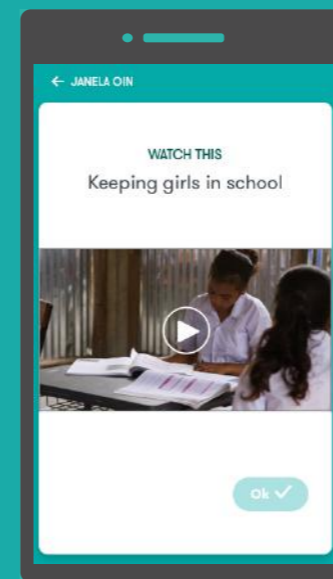
ID



Profiles



Nudge

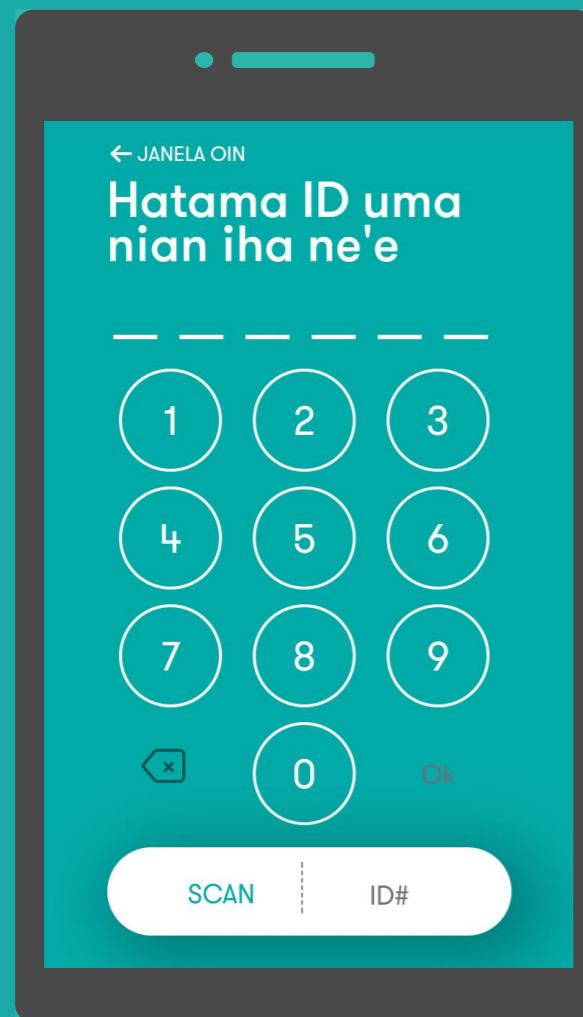


Evaluate



Unique Household ID

Trusted partners can ID the household



Household profiles

Each visit captures more household data




- Homes are onboarded
- Partners collect key demographic info about the household (DHS, MDPI)
- We continuously learn: as each partner interacts with the home, we learn more
- We track household exposure to messages and visits by partners
- Household information is encrypted, and not disclosed

Sharing content

Simple cards help prompt a conversation


Video

WATCH THIS
Targeted Community
Developed Video



Ok ✓

Conversation



LEE IDA NEE

Desde tinan 10 ba kotuk,
númeru labarik ba eskola
aumenta.

Governu Timor-Leste
hakarak garante katak
labarik feto no mane
hotu ba eskola.

Ok ✓

Commitment



Ita bele tau sabuan iha
ita nia haris fatin?

Sim

Lae

Ok ✓

Reminders

Follow up
SMS
messages

Targeting messages

Using household profiles to deliver targeted messages

- If HH has pregnant women, prioritise interactions about this topic
- Using a community-based video content approach (hat-tip Digital Green & SPRING!)
- Each of our partners is trained on content and key messages by other partners
- We are a channel; we work with partners to develop their messages

Demo

← JANELA OIN



[Husi vizita uluk, ami simu informasaun katak ita nia umakain iha labarik.] Bele ka lae hau hatudu video konabá benefisiu mantein labarik mane no feto sira ba eskola?

LAE

SIM

Demo

← JANELA OIN

HAREE VIDEO

Mantein labarik feto no
mane iha eskola



Ok ✓

Demo

← JANELA OIN



LEE IDA NEE

Desde tinan 10 ba kotuk,
númeru labarik ba eskola
aumenta.

Governu Timor-Leste
hakarak garante katak
labarik feto no mane
hotu ba eskola.

Ok ✓

Demo

← JANELA OIN



Ita gosta informasaun
ne'e ka lae?



Gosta



Maizumenus



La Gosta

La hatene

Ok ✓

Demo

← JANELA OIN



Obrigadu ba tempu!

Ita iha tempu atu hatan
pergunta konaba bee no
saneamentu ?

LAE

SIM

Demo

← JANELA OIN



Oinsa kanalizasaun bee
hemu ba ita boot nia uma
kain?



Torneira



Bee matan

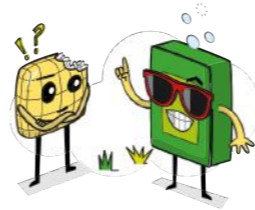
Seluk tan

La hatene

Ok ✓

Demo

← JANELA OIN



Ita nia umakain iha rai
kuak sentina ka toilet?



Sim



Lae

La Hatene

Ok ✓

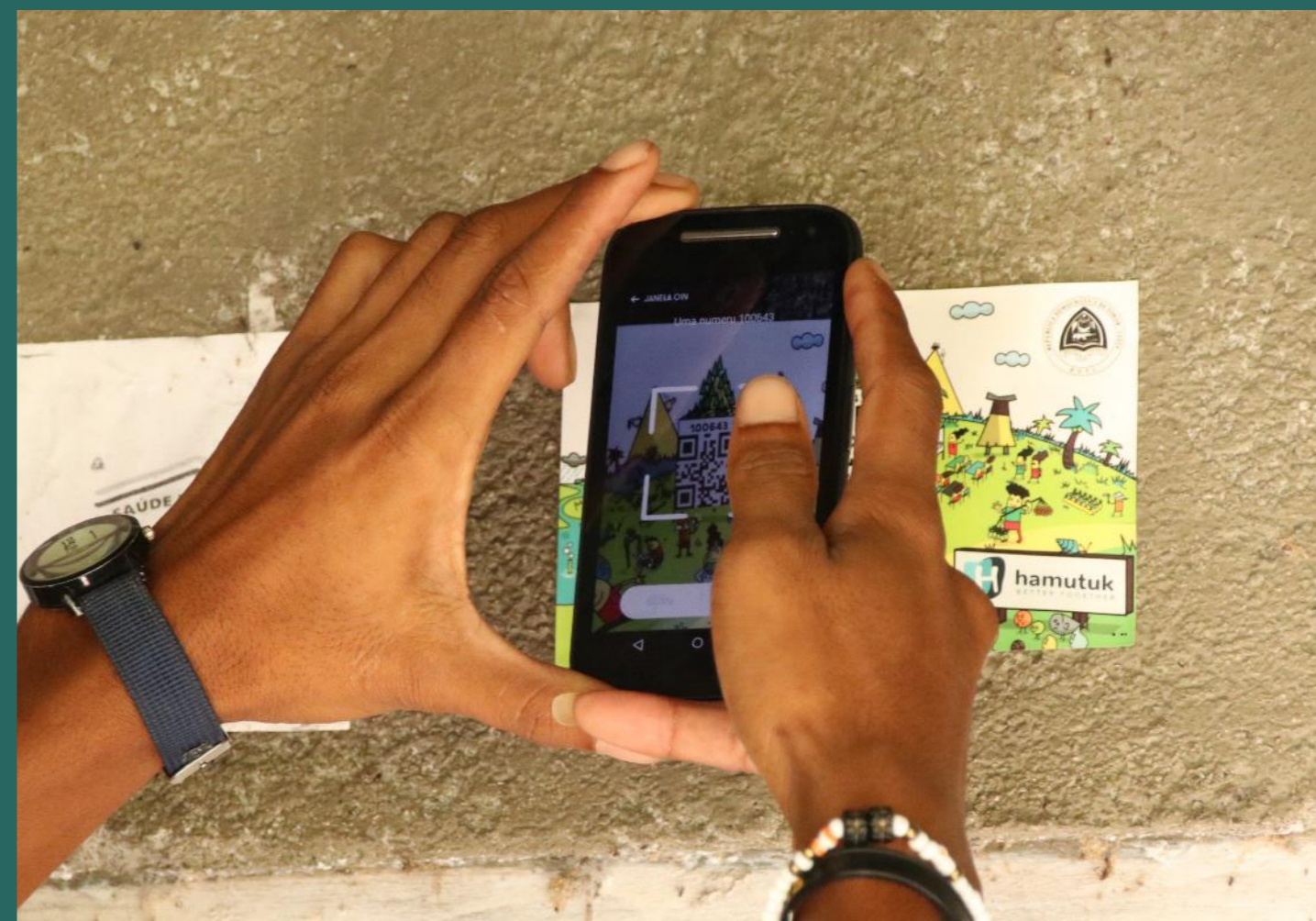
Demo

← JANELA OIN



Parabens! Ita boot
kompleta ona resposta
hotu iha uma ne'e.


Rai data ne'e



Evaluation

We call this a behavioural loop

Evaluate



If we were to look now,
would we find soap in the
toilet?


Yes No

Ok ✓

Partner A

Nudge


WATCH THIS
Targeted Community
Developed Video



Ok ✓

Partner B

Evaluate



If we were to look now,
would we find soap in the
toilet?

Yes No

Ok ✓

Partner C

Rapid RCTs

Evaluate



If we were to look now, would we find soap in the toilet?



Yes



No

Ok ✓

Nudge

WATCH THIS
Targeted Community
Developed Video



Ok ✓

BETA

Evaluate



If we were to look now, would we find soap in the toilet?



Yes



No

Ok ✓

Control

WATCH THIS
[New behaviour] is a good
thing to do because ...



Ok ✓

IF NO

After three months

So how are we going?

- In three months we have on-boarded around 300 households (1,500 people), or 1/3 of all homes in Holarua
- We just deployed a trial nudge on keeping girls in school — this has been shown to over 40 households (160 people)

After three months

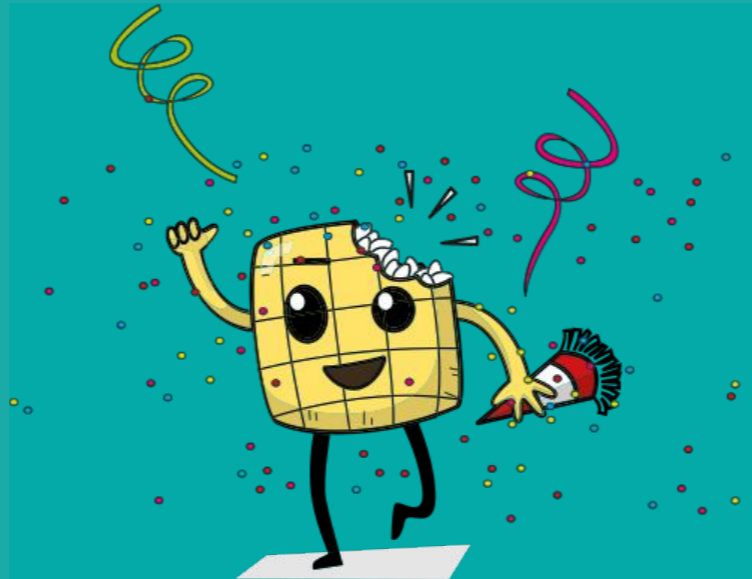
What is happening now?

- Working with partners to improve nutrition capacity (Partnership for Human Development)
- Working with partners and the community to produce community videos on key behaviours
- Using formative research to inform our behavioural interventions (progressing through our behavioural loops)
- Expanding features on the mobile app as we find better ways to collaborate (e.g. chat)

Proving a model that can scale at low cost

Where do we want to be?

- Evaluate our ability to do rapid RCTS using the collective action model and our app.
- Evaluate cost savings and efficiency gains through collective and integrated action.
- Integrate and scale the approach with government frontline services.



Thank you

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