

# Measuring the impact of a Digital HIV/ITS intervention on risk and social behavior of University of Santiago students

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CENTRE FOR  
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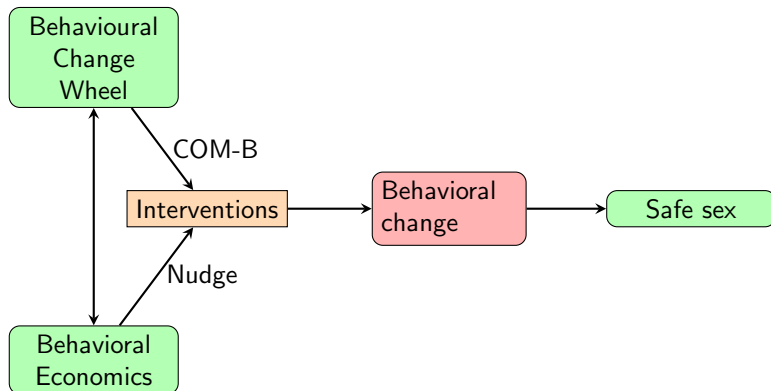
# THE GLOBAL IMPACT OF HIV & AIDS



**38 million people**  
**worldwide** are currently  
living with HIV or AIDS.



# Theoretical background



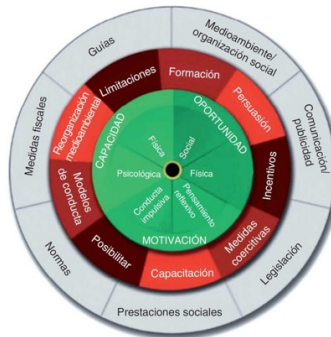
1. Theoretical Design    2. Experimental Conditions    3. Experimental measure

# Behaviour Change Wheel

The COM-B model of behaviour



Michie et al (2011) Implementation Science



■ Fuentes del comportamiento

■ Fines de la intervención

■ Tipos de política

# Our research Proposal

- Longitudinal online experiment comparing exposure to an HIV/STI risk prevention intervention (video) designed using the Behaviour Wheel Change perspective against a placebo
- Placebo = Another campaign aimed at USACH students (possibly 'staying active')

## *Dependent variables*

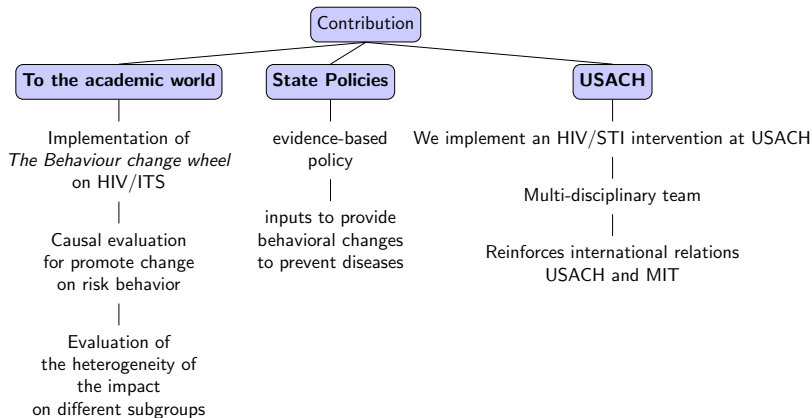
- Self-reported changes in risk taking behavior
- Self-reported changes in risk taking behavior using List Experiments
- Willingness to 'like' a video
- Willingness to 'share' a video
- Spatial Contagion – a.k.a Potential for organic (non-funded) dissemination of the intervention.

# Previous research

This research builds

- studies that evaluate the Behaviour Wheel Change, in multimorbidity (Sinnot et.al, 2015), Childhood Obesity (Taylor et.al, 2016) and cigarette smoking habits (Goul et.al, 2017), and
- studies that evaluate the impact of digital campaigns for alcohol and smoking reduction apps (Perski et.al, 2017), tobacco prevention in youth people (Zhao. et.al, 2016), and
- social media campaigns more generally – Rand (2020) papers on truth labels in social media.

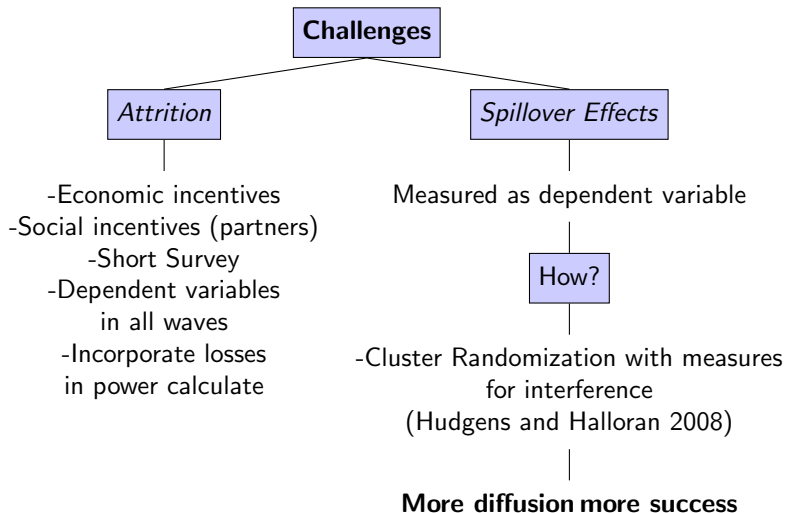
# Research contributions



# Longitudinal structure

- 1 Baseline survey (Wave 1) – Description of the Covid sexuality contingency.
- 2 Invitation to participate in a longitudinal study.
- 3 A total of 4-5 waves of evaluation and re-treatment – depending on budget. Estimated cost 25.000 USD, for economic incentives to respond to the survey.





# Wave 1 - survey Structure

- ① Informed consent
- ② Instructions, that enhance:
  - ① Economic compensation, and
  - ② Social contribution
- ③ Stated knowledge of USACH campaigns
- ④ Socio-demographics
- ⑤ Dependent variables of interest
- ⑥ Invitation to participate in future waves
- ⑦ If Accept — Randomize Video P; T1; T2; T1xT2 + payment info — measure 'Like'
- ⑧ If Not Accept — payment information
- ⑨ 15 minutes survey

*First wave results provide descriptive measure of USACH student's sexuality during COVID*

# The structure of Wave 2+

- ❶ Informed consent
- ❷ Stated knowledge of USACH campaigns
- ❸ Measure other dependent variables
- ❹ Treatment video: P; T1; T2; T1xT2 (same treatment allocated in wave 1)
- ❺ Willingness to share the video (from Wave 2 onwards)

# Power

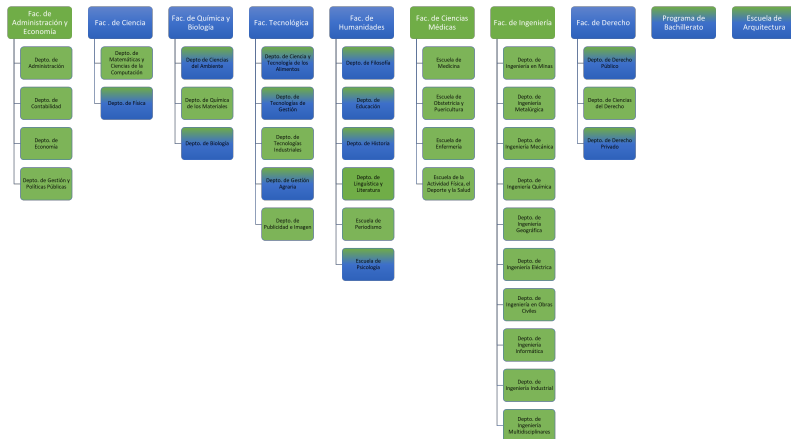
- ① There are 25.000-ish USACH students
- ② Wave 1: 2000 (8 % Answer survey) - Baseline -  $T$
- ③ Wave 2: 1200 (60 % retention) -  $T + 1\text{months}$
- ④ Wave 3: 1020 (85 % retention) -  $T + 3\text{months}$
- ⑤ Wave 4: 714 (70 % retention) -  $T + 6\text{months}$

# Randomization

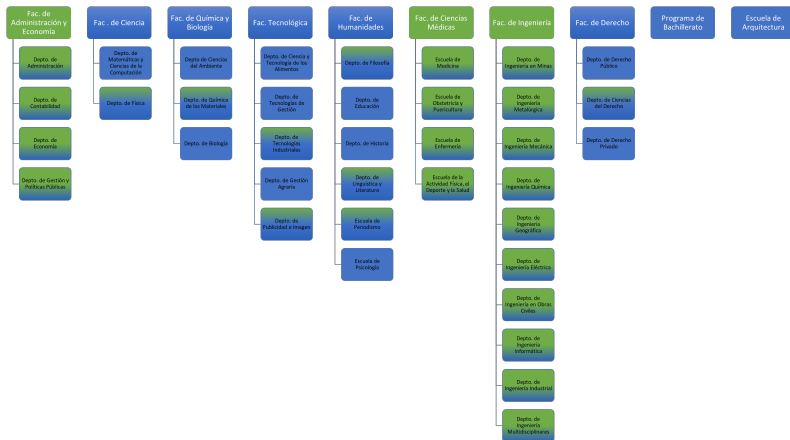
*Cluster randomization with diffusion design*, that allow one to measure spillovers (Hudgens and Halloran, 2008, Kang and Keele, 2019). En epidemiological approach.

- ①  $\frac{3}{10}$  Faculties with Placebo,  $\frac{7}{10}$  Faculties with Treatment
- ② Within the Treated Faculties, Departments are randomized:  $\frac{1}{3}$  Placebo,  $\frac{2}{3}$  Treatment.
- ③ Within the treated Departments, individuals are randomized with probabilities:  $\frac{1}{3}(\frac{1}{2}P|T1)$ ;  $\frac{1}{3}(\frac{1}{2}P|T2)$ ;  $\frac{1}{3}(\frac{1}{2}P|T2 * T3)$ , in gender and age blocks.

# Randomization



# Conjectures regarding diffusion



# Research importance



- Health Sistem
- Evidence
- *M-Health*
- Mechanism of behavioral evaluation in Health



# Research progress

- Second part of the DICYT project to support clinical research (2019-2020): "Effects of digital interventions for the prevention of STI/HIV in young people" (02193 DA-MED)
- Videos for experimental conditions
- Survey
- A Methodological model for intervention and evaluation



¡Thank You!