

# MAUCO –Maule Cohort

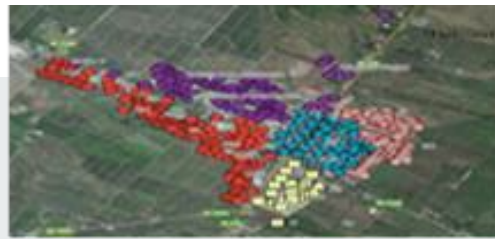
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Professor of Public Health  
Chile



## Resource Gaps and Barriers

1. MAUCO
2. Biobank & Data sharing Barriers
3. Discussion





MAUCO clinic



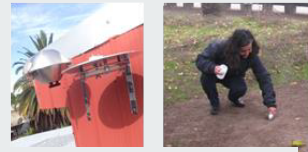
Health survey



Weight, height



Blood tests



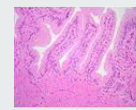
Soil+air samples

+



Aflatoxins in food

+



Tissue sample in cholecystectomies

+



Neuropsychological test



Waist, arm circumference



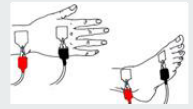
Hepato-biliary ultrasound



Up & Go test  
Walk test



Tooth count



Bioimpedance



Peak Flow test

## OBJECTIVES

1. Physical/mental health, healthy aging, events.
2. Exposures genetic-environment
3. Create a biobank
4. Preventive interventions

## METHODS

- **Location:** Molina
- **Participants:** population-based, age 38-74 yrs. Target 10,000 participants.
- **Baseline:** 2015-2019. Follow-up: 2017-2023.
- Surveillance of events.
- **Re-examination** every 2 years.

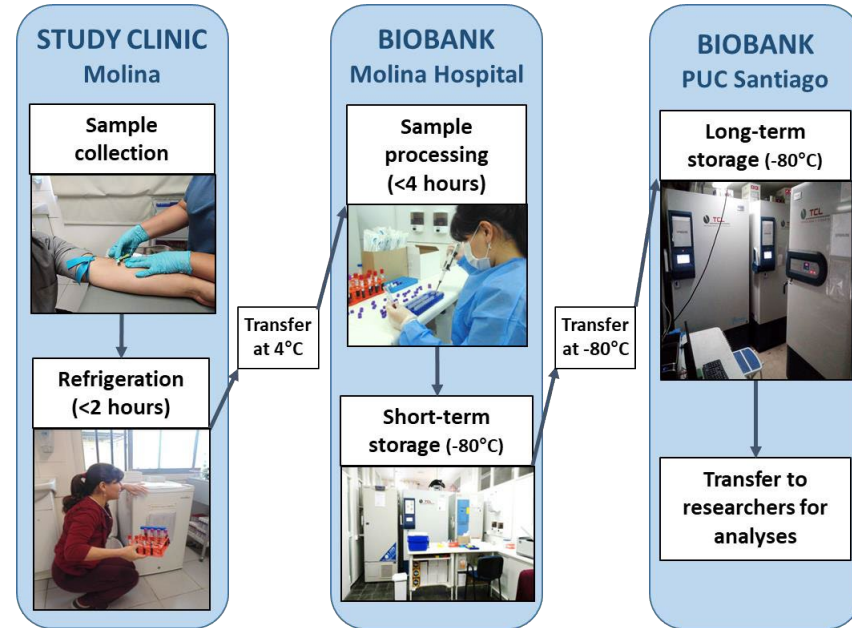
# 1. Biobank Barriers and Gaps

Electrical power, internet connection  
Dry Ice / Dry Shipper  
Equipment maintenance, emergencies  
Independent Administration  
International certification biobanking training  
Quality control of the samples  
Biobank management software license  
Tissue bank protocols  
Communication: biobanks relevance & impact

MVE CryoShipper 2000

The MVE CryoShipper 2000 is engineered specifically to ship large quantities of 2.5 and 3.0 ml vials. The new design can also store samples in liquid nitrogen after arrival at the destination.

- Features include:
- Large capacity - super alignment
  - Low liquid nitrogen consumption
  - -135°C cooler
  - Protective shipping container available
  - Changeover assembly is available
  - Changes in under 5 hours
  - Meets all international shipping IATA, Dangerous Goods Regulations, IATA, Dangerous Goods Regulations Exempt (Special Provision A-E)



## 2. Data Sharing Gaps

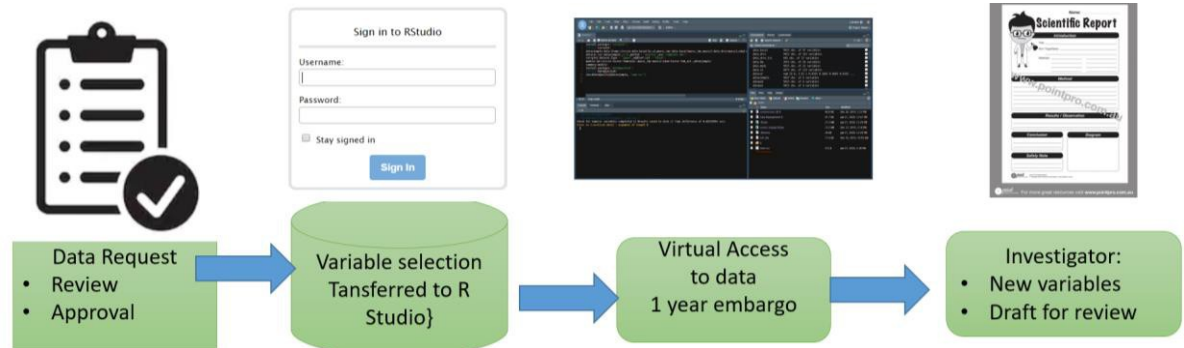
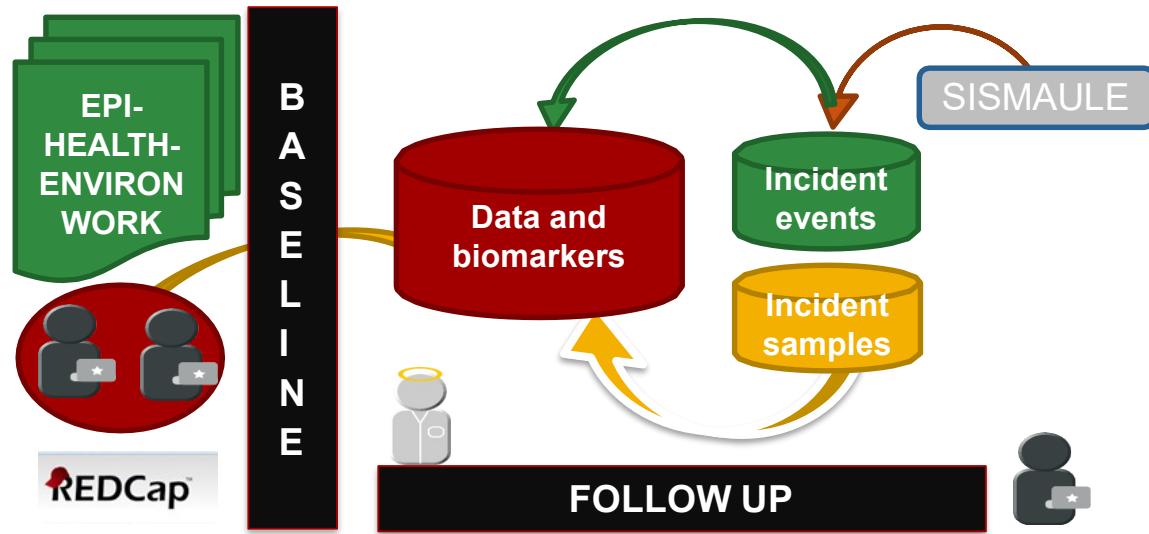
### 1. Advanced Human Resources:

- Data processing & QC
- Data analysis
- Scientific reporting
- Communication
- Drug and disease coding

### 2. Data sharing system

### 3. Effective support committees

- Adjudication committee
- Data access committee



## Studies nested in MAUCO

### Initiated

- **COVID 19: centinel center, epi, clinic, host and virus genomic,**
- ADHD exomic variants of approx. 250,000 markers
- Microbiome, H pylori and biliary disease
- **Genomic analysis** first 4,000 participants (SNPS & Ancestry)
- **Aflatoxin** exposure
- **Cognitive function and predictors**
- **Cholecystectomy and NAFLD**
- **Pesticide exposure**
- **Frailty, sarcopenia, and mortality**

### Planned

- Full exome sequencing of the 10,000 (Regeneron)





## Discussion

1. IHCC liaison with MAUCO
2. Training – Certification
3. IHCC Outreach to Policy makers.





**THANK YOU  
MUCHAS GRACIAS**

