

Perinatal BBV and STI care in Western Sydney: co-designing an integrated model of care for health system preparedness using Design Thinking

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Introduction

- Fragmented perinatal care for blood-borne viruses (BBVs) and sexually transmitted infections (STIs) in Australia risks poor maternal health and vertical transmission^[1,2]
- Syphilis and preventable congenital syphilis are increasing^[3,4]
- Vertical HIV and hepatitis B transmission are readily preventable with maternal diagnosis and treatment^[5,6]
- How best to integrate perinatal care for WHO's 'triple elimination' diseases (syphilis, HIV, hepatitis B) is unknown, particularly among priority populations
- Design Thinking is a novel approach to radically engage diverse stakeholders to co-design solutions

Methods

Participants (culturally diverse Western Sydney): health workers in maternal & foetal medicine, adult infectious diseases (ID), neonatology, paediatric ID, sexual health, public health, general practitioners (GPs)

Data collection: Process maps (patient journey maps by specialty, $n=10$), semi-structured interviews ($n=8$)

Analysis: Tailored Implementation of Chronic Diseases (TICD) framework^[7]: health system

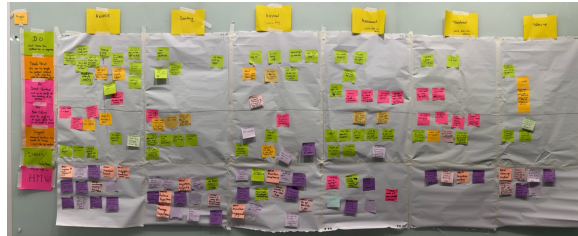
Co-designing models of care: Design Thinking workshop^[8]

- Approach selected due to diverse stakeholder expertise and priorities
- Need to be creative
- Previously highly successful with USYD students: AMR field school

Results

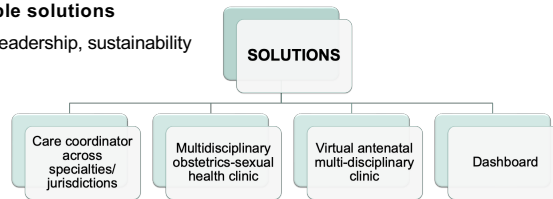
Design Thinking with a professional facilitator

- We used interviews and process maps to prepare for the workshop**
 - Determinants of care classified by TICD framework (below)
- We chose a common 'persona' (syphilis in pregnancy)**
 - Discussed common clinical scenarios, disease prevalence, health consequences
 - Selected persona based on Impact/Effort Matrix
- We empathy mapped: health care journey of persona**
 - Imagined how a pregnant person with syphilis might think/ feel/ do from diagnosis onwards
 - Identified 'touch points' (e.g., being informed of syphilis diagnosis by an unknown health worker), issues/ problems
 - Creatively ideated using "How might we...?"



4. We then designed feasible solutions

- Considering assumptions, leadership, sustainability



Interview & process maps: determinants of integrated and continuous care by TICD domains^[7]

- Enables 'Systems Thinking'^[9]: how health system components interact

"...first you need to realise that a new mum with a new baby is tired and exhausted and does not need multiple separate visits. I see so many times that people have to go to one clinic, then another clinic, then another clinic... It would be better to have a more patient-focussed, patient-centred approach to how care is provided..."
- Health worker 3

"I think everyone assumes that others are doing their job, but we don't always verify whether follow-up has happened or whether plans have been implemented. That can create gaps in communication..."
- Health worker 1



Conclusions

- Strong stakeholder commitment** to co-designing service improvements
- The project has already **enhanced cross-sector collaboration** and shared understanding of system challenges
- The facilitated co-design workshops identified **multiple priority stakeholder-led health service improvements**
- The process also revealed important **new research opportunities and knowledge gaps**
- Design Thinking successfully united stakeholders, generated actionable service improvements, and established a foundation for innovative models of care

Next steps:

- Implement and iteratively evaluate the co-designed models of care, including condition-specific care cascades
- Develop more models to address other 'persona' journeys, leveraging overlapping initiatives
- Preparing health services for the growing demand and complexity of perinatal BBV/STI care is an urgent priority**

Literature cited

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Acknowledgments

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