Session 2B Rapporteur
Rapporteur name: Elampirai Elangovan
Session title: Advancing HIV prevention and treatment through implementation and socio-behavioural research

Presentation title: Keynote 2: Pay it forward to increase HPV vaccine uptake compared to user-paid vaccination: A community based randomised controlled trial in Chengdu, China

Presenter Name: Dr Wu Dan

Presentation summary/highlights:

Dr Wu Dan shared the experiences on the population based RCT comparing standard-of-care practices and the novel pay-it-forward model to evaluate HPV vaccine effectiveness in young women aged 15 to 18.

- Burden of cervical CA and cervical CA related deaths high in China, up to 15%
- HPV Vaccine uptake is poor. Only 1-2% in girls aged 9 to 14, 11% in girls aged 15 to 24. There is also observed delay in vaccine uptake despite vaccine campaigns and subsidies.
- Study team worked on a population based randomised controlled trial to evaluate effectiveness of HPV vaccine uptake in women between ages 15 to 18. The solution that the team proposed was pay-it-forward practice that offers participants:
    - A: a subsidised service as a gift to someone they knew or to strangers
    - B: an opportunity to donate to support others in HPV vaccine uptake.

- There were 4 components to this model:
    - Financial component
    - Community engagement
    - Postcards and public health messages
    - Kindness and generosity

- Process:
    - Team conducted a feasibility and pilot study from January to June 2022: In terms of vaccine uptake, 82% in standard of care arm vs 98% in the pay-it-forward arm
        - Unusually high uptake numbers acknowledged
    - Refinement done for eventual study
        - Modes of recruitment: GP coordinated recruitment via residency registration system
        - Options of HPV vaccines limited in the community, 2vHPV was more widely available

- Results:
    - N=321, 160 in standard of care arm, 161 in pay-it-forward arm
    - Appointment rates for first dose of vaccine higher (42% in pay-it-forward model vs 21% in standard of care)
    - Actual vaccine uptake within 3 months higher (34% in pay-it-forward model vs 17.5% in standard of care)
        - Female sex of caregiver, higher education level of caregiver, higher household income associated with higher vaccine uptake in subgroup analyses – this difference became more apparent in the pay-it-forward group.
    - Secondary outcomes:

        - 2nd dose of HPV vaccine in 49/55 (89%) patients in pay-it-forward arm vs 20/28 (71%) in standard of care arm
        - Vaccine postponement higher in standard of care arm
    - Costs differences between 2 groups: Average of $294.3 in Standard of care vs $230.5 in pay-it-forward
    - Amongst those vaccinated (n=55 in pay-it-forward model), 39/55 of patients donated, 35/55 co-created postcards (writing messages on postcards etc)
        - Higher in donations in certain sites (Yulin, Longtan vs Jinyang, Xinjin) due to better financial capacity in those areas
    - Interview also done regarding vaccine confidence, perceptions differed between participants but some of the factors highlighted were lack of knowledge regarding importance of vaccine, lack of knowledge or concerns regarding safety and effectiveness

- Areas for future research/ challenges:
    - Reasons: studying reason for no show for vaccine after appointment procurement.
    - Challenges: Clinic payment (full schedule pay vs single dose pay), clashes of clinic timings with clinic hours

Critical assessment/Recommendations:

- Pay-it-forward model demonstrates promising results in this small study in the setting of HPV vaccine uptake. Can be adapted to other vaccine campaigns – 'feel good' element with tapping into people's innate kindness and generosity

Presentation title: Warming the context: Situating qualitative methods in implementation sciences and research among key populations

Presenter Name: Mr Daniel Ho

Presentation summary/highlights:

Dr Daniel Ho shared on his experiences in qualitative research, pearls he had learnt while working with marginalised communities and how one can recognise shortcomings within themselves while conducting research.

- Experiences of the vulnerable: 'Death by a thousand cuts' – prior trauma, burden of marginalisation and exclusion, shame and stigma from within for whatever reason
- 'Who we are affects how we are' – permeates all aspects including design, structure, formulation of questions, analysis
- 3 aspects to focus on:
    - **Reflexivity of researcher**: critically examine of role and address biases and assumptions that may influence work and research especially in qualitative work
    - **Nuances of the narrative**: Qualitative research enables the exploration of complexities and nuances of the lived experiences of the vulnerable and marginalised. Strength is that the perspectives are conveyed in patients' own words, and we need to be mindful not to take away the nuances of these narratives when analysing data.
    - **Participatory perspective –** Augments research process, especially when focused on implementing practices to serve marginalised populations. Partnerships with a wide range of stakeholders to achieve study goals.
- Use of self as a tool of engagement, productive qualitative research possible only when we involve more of the community

Critical assessment/Recommendations:

On the ground change requires the telling and listening of stories, keeping engagement of the community at the core. Lots of self-reflection, insight into one's reflexivity is vital before engaging in qualitative research.

Presentation title: Citizen-led qualitative research for HIV key populations: A framework for community-engaged implementation science

Presenter Name: Mr Chong Shao Yuan

Presentation summary/highlights:

Mr Chong Shao Yuan shared on a framework for citizenship science to use as guide when working with key populations.

- Prior to research, literature review vital – takes research out of a lab-based environment, studies contextual factors
- Citizen science and community-engaged approaches:
  - Engages non-academics in research process
  - Increased cost effectiveness, sustainability and relevance to the target group of interest

- 8 phases to citizenship science:

  - Phase 1: Developing a research and implementation pipeline – deconflicting key areas of research interests, involvement of who in which phase and the training required to move it forward

  - Phase 2: Stakeholder and resource mapping
    - 3 key resources: manpower, technological resources, monetary resources

  - Phase 3: Delegation of expertise
    - Academic researchers: focused on meeting academic requirements, financial needs, execution of study and mentorship
    - Community partners: community inputs throughout research conceptualisation, participant recruitment and supporting research and analysis process

  - Phase 4: Creating plans for equity
    - Participant reimbursement
    - Purposive sampling to ensure underrepresented LGBTQIA individuals are reached
    - Online interviews for anonymity
    - Community partners and academic researchers to be part of entire research process

  - Phase 5: Developing a research plan
    - Adaptable research timeline to fit needs of community members and research team, proceeding through standard ethics requirements, priortising safety for all stakeholders, focus on building social bonds alongside exchange of ideas and learning of skills for successful execution of research

  - Phase 6: Generating evidence and analysis

  - Phase 7: Dissemination and translation
    - volunteers invited to use data set to produce academic outputs aligning with their interest with generation of public reports

- Phase 8: Plans for sustainability and impact
  - Volunteers invited to expand on parts of study based on their interest
  - Invitation to continue Rainbow+ as a platform to pursue threads of research as a network of community researchers
  - Mapping programs developed from data collected from this study, to consider their efficacies in addressing needs highlighted in this study
  - Replication of study to evaluate improvements in experiments

Critical assessment/Recommendations:

Structured framework vital in productive community-based research, proposed framework as above.

Session 3B Rapporteur
Rapporteur name: Matthew Koh
Session title: Integrating HIV care and prevention services with primary care

Presentation title: Importance of STI prevention in people living with HIV

Presenter Name: Dr Benson Yeo

Presentation summary/highlights:

- STI prevalence among HIV positive patients is increasing. Prevention and detection of STIs in HIV-infected individuals remain a public health priority and an integral component of HIV primary care
- Reasons for rising STI rates include: Effective treatment for HIV (U=U) and decreasing condom use, Increased STI testing, use of HIV PrEP, use of social media to meet sexual partners
- STIs increase anogenital HIV load despite adequate plasma suppression by ART.
- STIs in HIV: More severe, more asymptomatic, more antibiotic resistant
- Routine screening for STIs important as asymptomatic infections are common. At least annual screening for STIs in HIV care settings. More frequent (3 – 6 months) should be done for those considered high risk.
- Doxycycline post-exposure prophylaxis: Doxy 200mg within 72hr of condomless sex reduce combined incidence of gonorrhoea, chlamydia and syphilis by two-thirds in an open-label randomised trial

Critical assessment/Recommendations:

- Routine screening for STIs among PLHIV is crucial given they are often asymptomatic. At least annually, but ideally 3 – 6 monthly in those at high risk.
- Consider PO Doxycycline 200mg within 72h of condomless sex as post-exposure prophylaxis for gonorrhoea, chlamydia, syphilis.

Presentation title: PrEP updates and HIV prevention in primary care

Presenter Name: Dr Lee Pei Hua

Presentation summary/highlights:

- New recommendations: Any individual who requests for PrEP should be offered even if no specific risk behaviours are identified. Individuals at risk of HIV may feel uncomfortable discussing their sexual behaviours with healthcare workers for concerns of stigma and discrimination.
- Daily PrEP and on-demand PrEP are both options. However, on-demand PrEP has only been studied in MSM and TGW and not in IVDU or individuals engaging in heterosexual sex.
- NHIVP PrEP guidance includes recommendations on baseline evaluation, counselling, contraindications, follow-up.
- TAF/FTC for PrEP: Studied for cis-gender MSM and transgender women as a daily PrEP regimen (not on demand). Can be used in renal impairment up to CrCl of 30mL/min.
- Long-acting IM Cabotegravir: Studied and effective as PrEP in heterosexual women, cis-gender MSM, transgender women who have sex with men. However not yet licensed for use as PrEP in Singapore.
- Cost of drugs and testing remain a barrier to access to PrEP in Singapore.

Critical assessment/Recommendations:

- TDF/FTC and TAF/FTC options for PrEP in Singapore. Important to do adequate counselling, baseline evaluation, monitoring for individuals on PrEP.
- Any individual who requests for PrEP should be offered even if no specific risk behaviours are identified.

Presentation title: Tuberculosis Infection in People Living with HIV

Presenter Name: Dr Tay Jun Yang

Presentation summary/highlights:

- There has been a shift in definition of TB to a continuum between TB infection (TBI) and active TB disease.
- Individuals with TBI are asymptomatic and non-infectious. However, even with effective ART, risk of active TB disease among people living with HIV and untreated TBI remains 3 – 12x that of general population.
- Important to screen for TBI in people living with HIV. Only 0.6% of patients at NCID/NUH are being screened. Screen at initiation of care and following recent contact with a person with active TB disease.
- Screen with intent to treat TBI but exclude active TB disease first before initiating treatment.
- Screen with IGRA. Exclude active TB with symptom screening, chest radiograph and potentially sputum AFB studies.
- Treatment regimens: 6H or 6 months of Isoniazid 5mg/kg daily + Pyridoxine as first line. Alternatives: 4R or 4 months of Rifampicin 10mg/kg daily, 3HP or 3 months of Isoniazid 900mg once/week and Rifapentine 900mg once/week
- 1HP or 1 month of daily Rifapentine with Isoniazid is a newer regimen that is non inferior to 9H. However, Rifapentine still not widely available.

Critical assessment/Recommendations:

- Important to screen and treat for TBI in PLHIV.
- Screen with IGRA. Exclude active TB with symptom screening, chest radiograph and potentially sputum AFB studies.
- Treatment: 6H or 6 months of Isoniazid 5mg/kg daily + Pyridoxine as first line.

Presentation title: The intersection of frailty, ageing and HIV

Presenter Name: Dr Justin Chew

Presentation summary/highlights:

- The number of older people living with HIV 50 years and older is increasing in Singapore and worldwide.
- People living with HIV have accelerated immunosenescence, increased metabolic comorbidities, frailty and geriatric syndromes at a younger age.
- Identifying frailty early in older people living with HIV allows targeted approaches for interventions in this group at greater risk of negative outcomes.
- Frailty can be difficult to define but frailty measures (e.g. Fried frailty phenotype, Fried index, Clinical frailty scale) are helpful and have been studied in people living with HIV.
- Frailty interventions for older people living with HIV: Comprehensive geriatric assessment (CGA), endurance and resistance exercise interventions, address polypharmacy

Critical assessment/Recommendations:

- At age 50 years or older, people living with HIV should be screened for geriatric syndromes and ideally for frailty with a locally validated screening tool.
- Consider involving geriatricians or taking a multidisciplinary approach with allied health if geriatric syndromes or frailty is identified.