Nicolette Naidoo

“Go As Fast As You Can – But Always Follow the Implementation Science”*: Closing the Adolescent HIV Prevention and Treatment Gaps

Wits Reproductive Health and HIV Institute

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*derived from AVAC spotlight report, 14 October 2020 re the development of COVID-19 vaccines
Presentation Outline

• Key Tenets of Implementation Research
• State of Adolescent Health and Wellbeing
• Prevention and Treatment Gaps
• Implementation Research Opportunities
  • Reaching young people – Digital innovations
  • Its not only about the facility – decentralised service delivery models
  • Scaling up comprehensive SRH and PrEP - Long Acting Methods
  • Youth Engagement
• Concluding Remarks
The study of methods and strategies to promote the uptake of interventions that have proven effective into routine practice, ...examines what works, for whom and under what circumstances, and how interventions can be adapted and scaled up in ways that are accessible and equitable.”

Global Alliance for Chronic Diseases

- Aims to close the gap between evidence, policy and practice
  - Lack of coordination of emerging interventions
  - Small pilots
  - Inefficient and ineffective interventions are taken to scale – comes at high cost in resource limited settings
- Numerous IS frameworks and definitions – most commonly used CFIR, RE-AIM
- Examines implementation outcomes
  - Acceptability, Adoption, Appropriateness, Costs, Feasibility, Fidelity, Penetration, Sustainability
The adolescent burden of disease reaches further than just HIV infection and SRH related illness.

Adolescents face a multitude of health and social drivers of disease.
Young lives are riddled with risk

**Diseases of poverty**
- Infectious and vaccine preventable diseases
- Under nutrition
- HIV
- Sexual and reproductive health

**Injuries**
- Unintentional injuries
- Violence

**Non-communicable diseases**
- Physical disorders
- Mental health disorders
- Substance use disorders

**Epidemiological Transition**
- **Multi-burden**
  - ≥2500 diseases of poverty DALYs per 100 000 per year
- **Injury excess**
  - ≥2500 injuries
  - <2500 diseases of poverty DALYs per 100 000 per year
- **NCD predominant**
  - <2500 injuries
  - <2500 diseases of poverty DALYs per 100 000 per year
State of Adolescent Health

- Africa – adolescent youth bulge – 60% of the continent population <25 years
  - 293 million by 2050 *(UN youth population trends and SDGs, 2015)*
  - Significant population level effect if HIV incidence is not curbed
  - Increased demand on health systems

- AGYW 15-24 years:
  - Eight times more likely to become infected with HIV vs. males of the same age
  - 1300-1500 new HIV infections a week in South Africa *(NDOH, NSP for HIV, STIs, and TB 2017-2022)*

- AGYW 18-20 years highest incidence of HIV compared to AGYW 21-30 and 31-35
  (ECHO Trial, 5.03 per 100 vs 4.72 and 1.67)

- STI prevalence – Chlamydia and Gonorrhae incidence high *(53% and 20% respectively in POWER trial – Johannesburg, Cape Town and Kisumu; n= 1504)*
Myriad of factors making HIV prevention difficult

- **Risky sexual behaviours** – early sexual debut, multiple concurrent partners, inconsistent/no condom use (up to 40% never use condom last sex), age disparate relationships (20-40% of AGYW report partner 5-10 years older; GAP Year and Project PrEP); **substance use**

- **HIV prevention knowledge** not universal

- **GBV and harmful gender norms**
  - More than a third of girls experience sexual violence before the age of 18
  - creates power differential and lack of autonomy

- **Identifying those most at risk** - early diagnosis and treatment, whilst ensuring appropriate primary prevention so that adolescents stay negative

- **Access to Services:**
  - Lack of resource to access traditional health services
  - Integrated service delivery – missed opportunity and multiple needs i.e. unmet needs for contraception, mental health, psychosocial support, post violence care

- **Uptake (underutilised) and continuation of prevention methods** – contraception, condoms and PrEP
  - High uptake of oral PrEP among AGYW but gaps with continuation
What about treatment?

- Significant testing and treatment gap:
  - Progress towards 90-90-90 for adolescents 15-24 years: 74-52-85
  - Sex and provincial variation

- Implementation of policy shifts – low uptake of UTT
  - 20% of newly diagnosed women with TB/low CD4 count in Soweto refused ART initiation - “feeling healthy”, “unable to disclose to family members”, and “(concern about) side effects

- Access to testing and treatment
  - Disclosure support – close relationships and social support experience better linkage and treatment experience
  - low facility testing coverage - barriers to accessing facilities
  - Holistic integrated QUALITY care

- Treatment tolerance/side effect profiles - TLD

- Adherence and retention in care
  - 63.3% after 6 years – Fox et al. 2018

Marinda et al. BMC Public Health (2020) 20:1375
Adapted from STRIVE – HIV Prevention Cascade Infographic

Summary of Prevention and Treatment Gaps

Adolescent Population

- Those who want to use PREP or those who want to initiate on ART
- Those who can access prevention/treatment services
- Those who effectively use prevention/treatment

Motivation

- Knowledge
- Risk
- Norms
- Stigma/Discrimination

Implementation Research Questions

- How can existing communication channels be leveraged to deliver prevention and treatment knowledge and awareness to AGYW to ensure normalization of prevention and treatment interventions (demand creation through digital innovation)?
- Which delivery platforms/models could be implemented to increase access to services for adolescents? (Schools, community-based)
- What components of health service delivery will ensure quality and acceptability by adolescents?
- What interventions can be implemented to support ongoing continuation to prevention or adherence to treatment? (YCC, non-user dependent, increased drug tolerability)

Sexually active young women not using condoms or young women with HIV positive status not on ART
Opportunities for Implementation Research
1. Opportunity to use Digital Innovations to Inform, Engage and Link

Engagement is primarily driven by users reaching out to the project which demonstrates online interest:

Defining metrics for evaluating reach and quality of digital innovations:
- As at end of October, Sister Unathi (chatbot) has engaged 6211 users by having over 16 000 conversations.
Multiple channels and tactics to reinforce the message and increase reach: - underutilised

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<th>Radio</th>
<th>Social mobilisation reach</th>
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<td>TOTAL</td>
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Since inception in January 2018, Project PrEP has initiated 10219 in individuals on PrEP, of which 5589 (54.69%) are AGYW.

Table 1: Total demand creation reach for Project PrEP, November 2018-30 September 2020

Online engagement (comments, likes, shares) on Facebook posts only, measured at 385 600 since inception, excluding private messages received and responded to daily. Since inception,
2. Opportunity – Many UPIs that are under utilized and lack data to support use

User Provider Interfaces to Reach Young People and Scale Prevention and Treatment Interventions:
- School Based and Community Models
- Integrating with existing services – ANC, PNC, Contraception
- Youth Care Clubs
- Self Care

BUT, important questions need to be answered re:
- feasibility, acceptability, uptake, coverage, effectiveness

Source: HIV biomedical prevention strategy in SA: BCG
3. New technologies that have potential to overcome access, adherence and continuation barriers – underutilized or understudied

Long-Acting Injectable Cabotegravir; Dapivirine Ring; HIVSS, Sub-Cutaneous and Injectable Contraception

**Determine:**
- Inputs needed at country and local level to implement and scale interventions
- Cost effectiveness – modelling impact

**Assess supply and demand:**
- Health system readiness to introduce new methods – vertical vs horizontal integration
- Capacity building needs of health workers – tools, job aids, training platforms
- Demand Creation for new methods at all levels of the eco-system

**Determine:**
- Service delivery models and entry points to care
- Feasibility, acceptability, uptake, continuation/persistence on methods
- Real time data to inform timeous policy and programmatic shifts
4. Youth Engagement in Design and Scale up of Interventions

- Ownership of brand identity
- Advocacy
- Ensures responsiveness to the needs of adolescents

Wits RHI – Generation PrEP: Simunye

- a group of nationally representative youth who provides input, oversight and guidance on programmatic and communication activities
- Regular capacity building sessions and regular fun…
- Available for insights to all GOV depts and implementing partners
- 4 per year in-person sessions
- Further engagement through zoom and WhatsApp
- Active ambassadors int heir communities – have started their own HIV prevention ambassador groups and currently training other youth
Multiple Opportunities to Improve Prevention and Treatment

- **FOCUSED IMPLEMENTATION SCIENCE CAN BE A CATALYST**
  - Align to policy and national priorities – dissemination of evidence as real time as possible (translational research)
  - Limits implementation mistakes at scale, particularly in limited resource settings
  - Allows catalyst **TO SCALING PREVENTION AND TREATMENT INTERVENTIONS**
  - Allows rapid progression to scale - effective strategies at the right scale and cost
  - Identify adaptations needed for programmes as translated to different settings – HINC to LMIC
  - Allows for health systems strengthening approaches and addresses both demand and supply side of intervention implementation
  - To test the most effective combination interventions at the correct intensity and right coverage for impact (DREAMS)
  - Bear in mind COVID-19 responsiveness
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Thank you!

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