HIV Care Continuum

Adopting Sustainable Innovations for Remote Access to HIV Care

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Adopting Sustainable Innovations for Remote Access to HIV Care

Evans D, Moolla A, Maluleke V, Leshabana P, Coetzee L, Miot J

HIV Care Continuum Adherence 2022
Monday November 7 from 1:45-3:00 PM ET
Impact of COVID-19 on HIV

South Africa made significant progress before the emergence of COVID-19
- Maternal mortality reduced to just over 70 per 100,000 live births
- Under 5 mortality rates reduced
- Universal healthcare targets were within reach
- For HIV, more than 5.3 million people were receiving ART
- Success rate for TB was on an upward trajectory

COVID-19: Routine healthcare services were negatively impacted
- Impact of the pandemic and government restrictions on patients and healthcare services have been described.
- Urban + peri-urban ► rural areas
- Fewer reports describe how service delivery was adapted.

Benade M et al, BMC Health Serv Res (2022)
Impact of COVID-19 on TB

- TB cases and deaths now increased for the first time in decades.
- WHO – fewer cases were detected and fewer people treated during 2020/2021 due to disruptions caused by COVID-19.
- In 2021, compared to 2020
  - 10.6 million with TB in 2021 (↑ 4.5%)
  - 1.6 million died ↑
  - TB incidence ↑ 3.6%
  - 3% ↑ in DR-TB; 450 000 new RR-TB
- Major drivers: growing rates of poverty, inequity, under-nutrition, co-morbidities, discrimination and stigma.

"TB services are among many others disrupted by the COVID-19 pandemic in 2021, but its impact on the TB response has been particularly severe".

Global trend in case notifications for TB (2015–2021)

- WHO Global TB Report, 2022
Interventions to strengthen the public health system

Rapid review
19 countries
Close to 100 interventions

e-survey (SA)
7 provinces; 47 responses
researchers, funders, stakeholders, implementing partner

Building institutional capacity

Strengthening service delivery

Digital transformation

Community engagement

Health Economics and Epidemiology Research Office (HE²RO)
Framework
Improving service delivery

Screening, testing, diagnosis
- New tools or equipment
- Self-testing & rapid screening
- Health-care worker support and training

Facility-based care
- Self-testing & rapid screening
- Facility operating hours
- Community-led monitoring
- Community-based care
  - Case finding, Improve treatment outcomes, M&E

Monitoring and evaluation
- Monitor key indicators
- Technical support for procurement
- Self-testing & rapid screening
- Improved reporting & access to results
- Telehealth and patient support
- "Welcome back campaign"
- Expanded DSD models + eligibility
- Remote monitoring
- Virtual models
- Facility operating hours
- Patient support

Linked in care
- Resource mobilization
- Private-public partnerships

Retained in care
- "Welcome back campaign"
- Expanded DSD models + eligibility
- Remote monitoring
- Virtual models
- Facility operating hours
- Patient support
Screening, testing, diagnosis

- Doorstep diagnostic services and delivery of results
- Sputum collection at patient’s home
- Self-screening and self-testing
- Availability of self-testing in non-health settings including community check points
- Increased co-morbidity testing (diabetes, HIV etc.)
- Mobile outreach with GeneXpert and digital X-ray
- Targeted ACF for TB – high burden villages, congregate settings and urban settlements
- Integrated sample transport for COVID-19, TB & HIV

- Digital technology to improve delivery of results
- Digital specimen referral to facilitate specimen transportation

- Additional GeneXpert / Truenat machines
- Chest X-rays and computed aided detection

- Private providers to identify and refer to NTP clinics
Linked in care:

- Communication material given during re-engagement or via SMS
- Communication through radio, print or social media
- Interactive voice calls to raise awareness and improve self-referrals

- Peer led counselling – village health support group
- Telemonitoring to provide patient counselling
- Follow-up patient remotely through telephone
- Telemedicine to reach patient lost or who miss a visit
- Peer led navigators
- Lay counselors/recruits in the community to link patients with the health facility for TB services
- Telemedicine to refer for TB preventative therapy
- Nutritional support, food parcels, care packages
- Monetary support via mobile payment platforms
- Hospital linkage (Cambodia) – support district referral hospitals to conduct TB screening at OPD & IPD wards.

"Welcome back campaign"
Retained in care

- Medication collection and delivery
  - Multi-month dispensing for TB
  - Extended multi-month dispensing for HIV
  - Multi-month dispensing for children < 15 years
- Community collection of medication
  - E-lockers or pelebox / Gazebo or rental containers
- Delivery of medication to household via delivery bike/scooter/motorbikes, uber, CHWs, or clinicians.
- Community delivery to a convenient central point by CHWs or clinicians. Drone delivery for hard-to-reach areas.
- Collection of medication at private pharmacies
- Rapid registration of stable HIV positive patients at external pick-up points
- Decanted PLHIV to external pick-up points closer to home
- SMS to reach those who miss a visit for ARV collection
- Telemedicine to provide support, DOTs, monitor treatment
- Visit or medication refill reminders
- Call centers to manage services & provide counselling
- Telephonic or video DOTS – adherence and ADR monitoring

Mash et al. BMC Health Services Research (2022) 22:98
Monitoring and evaluation

- Enhanced NTP electronic recording and reporting system
- Send GeneXpert results to client & provider automatically using software (DataToCare – Cambodia)
- Geospatial hotspot mapping – early outbreak warning
- Monitor program data
- Monitor key indicators virtually during interactive team discussions
- Increased technical support for data completeness and treatment outcomes
- Technical support to access, forecast and procure ARV stock to minimize stock-outs.
- Community-led monitoring of service delivery

https://ritshidze.org.za/the-model/
Emergent adaptations of HIV and/or TB service delivery in response to COVID-19

Adaptions to HIV/TB service delivery implemented in response to COVID-19

Reports documenting changes to service delivery during COVID-19

- Screening, testing and diagnosis
- How treatment is provided + preventative therapy
- Medication collection + delivery
- Virtual model
- Community model
- Patient support
- Clinic visits
- Health-care worker support
- Awareness, education + patient empowerment
- Monitoring and evaluation/reporting
- Other
Health care worker perceptions

- n=335 HCWs across 45 PHCs
- 34% change in roles and responsibilities
- 57% experienced staff absenteeism
- 41% inadequate space – social distancing
- 22% indicated reduced number of patients that could be attended to due to social distancing
- 49% increased workload

- Virtual training
- Virtual review meetings
- Training in small groups
- Virtual support for burn-out and self-help
- Digital platforms for continuous learning
- Hiring more personnel
- Digital technology to access results quicker
- More technical support – M&E, procurement, data completeness etc.
Limitations

• Most interventions focused on screening, testing, diagnosis or medication delivery and collection. Fewer on adapting clinic visits, awareness, patient education, M&E and reporting

• Cost-effectiveness data is needed to decide which interventions are sustainable and should be adopted as part of better service delivery.

• Nature of the intervention: design (no comparison), small scale, single site, specific setting, limited follow-up or no outcomes reported

• Video DOTS - difficult to monitor medication intake remotely

• Few report patient or provider experiences or perspectives

• Likely that some interventions have not been documented
Evidence at the programmatic level

- Nigeria
- Case finding and contact investigation

<table>
<thead>
<tr>
<th>Improved TB case finding using geospatial hotspot mapping</th>
<th>Digital chest X-ray</th>
<th>Scale-up of TPT in the community</th>
<th>Community gate keepers</th>
<th>New tools - Truenat</th>
<th>GeneXpert utilization</th>
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</thead>
<tbody>
<tr>
<td>• Identifies hotspots</td>
<td>• Increase in TB cases diagnosis in the community</td>
<td>• Community volunteers</td>
<td>• Communities with high enrolment gaps</td>
<td>• New equipment</td>
<td>• Sensitive HCWs on the need to use GeneXpert</td>
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<tr>
<td>• Shows activities and facilities supported</td>
<td>• Capacity building on AI software, CAD4TB, to increase diagnosis in the community</td>
<td>• Training, mentoring and supervision</td>
<td>• List of people diagnosed with TB</td>
<td>• Training HCWs on the use of the machines and sample collection</td>
<td>• Use GeneXpert for testing in children using a stool sample</td>
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<td>• Priority screening list of areas</td>
<td>• Focused community interventions</td>
<td>• Contact investigation</td>
<td>• Followed up weekly – track and re-engage in care</td>
<td>• Detect MTB and RR-TB</td>
<td>• Training and SOPs in sample collection</td>
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<tr>
<td>• Community gate keepers</td>
<td>• Scale-up of TPT in the community</td>
<td>• DOTS officer daily review – support community volunteers</td>
<td>• At the health centre level</td>
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**Case notifications of people newly diagnosed with TB in 2020 and 2021 compared with 2019**

- Nigeria

- **USAID TB Symposium November 2022 – O. Kayode TB LON 3 Project**
Summary

• COVID-19 pandemic demonstrated that services can be delivered outside health facilities and with less facility-based interactions.

• Strengthening community-based care and scaling up self-care models can overcome some of the barriers to health seeking for TB, HIV and other chronic conditions that were observed during COVID-19.

• Integrated services - more convenient for patients, improves patient satisfaction and retention + frees up providers and resources.

Many examples of where this worked well
Summary

- Leverage existing systems for TB, HIV and other chronic conditions (transport systems, referral networks, treatment supporters) and consider targeted interventions to improve outcomes.

- Use data and digital tools to improve services
  - Community-led monitoring to collect and analyze data to generate evidence based solutions for the community.

- Multi-sectoral approach and collaborations (public-private partnerships (PPPs)).
Conclusion

• Expand efforts to get TB and HIV responses back on track.

• Close to three quarters of documented interventions have been adopted as part of routine care (survey conducted in South Africa).

• Experiences and lessons learned can help build a more resilient health system.

• Solutions will have to be tailored for the setting (e.g., internet coverage, limited telephone services).
Thank You
For Your Attention