DSD Models for HIV/NCD integration

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DSD Coverage has been rapidly scaled-up in Eswatini from 15.5% (December 2017) to 54% (December 2019)

The majority of clients enrolled in DSD are in Fast-track, followed by Teen clubs and Family Centered Care model.

The number of DSD models implemented in the country has also increased to respond to specific client’s needs.
• There is a relatively high-prevalence of Non Communicable Diseases (NCDs) in Eswatini, including amongst People living with HIV (PLHIV).

• Research studies conducted in Eswatini and South Africa showed hypertension rates of 30%-40% amongst clients ≥ 40 years taking ARVs.

  - Rabkin et al., ALSM 2016

• High prevalence of NCDs in the country including amongst PLHIV has motivated the program to integrate NCDs services in DSD models, with the aim of providing holistic integrated care and improve quality of services.

• In this regards, the Ministry of Health (MOH) in the Kingdom of Eswatini has decided to pilot an integrated HIV and NCDs DSD model.
Why implementing HIV/NCD integration model

- Both diseases have shared health system barriers
- Active identification and management of clients with comorbidities
- Able to design consistent and standardized package of care with uniform monitoring strategies and algorithmic approach
- Enable task-shifting / task-sharing, training at scale and decentralization of services
- Empower clients with comorbidities and take services in the community
METHOD (1)

• Two Regional health facilities (Pigg’s Peak and RFM hospitals) have been selected to pilot this DSD model. The selection criteria were based on their expertise of implementing facility based individual and group models.

• Facility based group model has been selected because it allows easy refills of both NCDs and HIV treatment (e.g. prepacking of medicines), and psychosocial and peer support.

• Facility specific SOPs have been adapted from the National SOPs focusing on most prevalent NCDs with highest health impact.

• Staffs members working at the ART Unit were trained and oriented through in-country learning exchange visits.

• What services are we integrating? • Screening • Diagnosis • Prevention (primary & secondary) • Treatment
METHOD (2)

• Eligibility criteria for this model included:
  • Clients of ART and NCDs treatment for more than 12 months
  • Clients with well controlled HIV and NCDs
  • Clients with good adherence history to both treatment
  • Clients with the most prevalent NCDs, including Hypertension, Diabetes, and Asthma

• Description of the model:
  • Average of 23 members per clubs
  • Meetings conducted at the health facility
  • Cadre involved: Nurses, and Expert Clients.
  • Frequency of meeting: 2 months
  • Services offered: Screening of NCDs and TB, provision of TPT, ARVs and NCDs medicines.

• Files of clients with NCDs have been identified and flagged during the baseline data collection process conducted before the implementation of the model, with the objective of actively recruit clients into the model
More Intensive Models for PLHIV identified with Uncontrolled NCDs:

- Clients are appointed on a specific “light day”
- They are reviewed by a Medical Doctor or Multi-disciplinary team
- They are provided with a comprehensive clinical review at the ART Clinic
- The period of refill depends on the severity of the NCDs, it is aligned to refill of ARVs
- Clients are reviewed by a Medical Doctor
- Once their NCDs becomes controlled, they are referred back to Treatment Clubs (Less intensive model)
Overall NCDs and HIV Clubs Data

Total Number of Clients enrolled by type of NCDs and Age (N = 164)

- Hypertension
- Diabetes Mellitus
- Hypertension + Diabetes Mellitus

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
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<tbody>
<tr>
<td>30-39</td>
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<td>36</td>
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<tr>
<td>40-49</td>
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<td>30</td>
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<td>50-59</td>
<td>9</td>
<td>30</td>
<td>39</td>
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<tr>
<td>&gt;60</td>
<td>19</td>
<td>39</td>
<td>58</td>
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Overall, 73% of clients have NCDs and HIV.
Total Number of Clients enrolled by Age and Sex (N = 108)

- 30-39: 2 Female, 0 Male
- 40-49: 22 Female, 6 Male
- 50-59: 21 Female, 12 Male
- >60: 30 Female, 15 Male

Total Number of Clients enrolled by type of NCDs and Sex (N = 108)

- Hypertension: 45 Female, 18 Male
- Diabetes Mellitus: 6 Female, 7 Male
- Hypertension + Diabetes Mellitus: 24 Female, 8 Male
Pigg's Peak Hospital NCDs and HIV Clubs Data

Total Number of Clients enrolled by Age and Sex (N=56)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Female</th>
<th>Male</th>
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<tbody>
<tr>
<td>30-39</td>
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<td>0</td>
</tr>
<tr>
<td>40-49</td>
<td>14</td>
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<td>16</td>
<td>6</td>
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<tr>
<td>&gt;60</td>
<td>14</td>
<td>5</td>
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Total Number of Clients enrolled by type of NCDs and Sex (N = 56)

<table>
<thead>
<tr>
<th>NCDs</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypertension</td>
<td>29</td>
<td>10</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Hypertension + Diabetes Mellitus</td>
<td>9</td>
<td>1</td>
</tr>
</tbody>
</table>
LESSONS LEARNED

• Assigning specific facility staff to each clubs allows close monitoring and follow-up of clients and assisted to build client’s confidence and adherence to treatment.

• Clients are enjoying the interaction with their peers, they seems to feel more free to ask questions related to their disease

• Clients with poor adherence were actively moved back to mainstream (more intensive model) for close monitoring and step-up adherence, and receiving two or more months of refill has motivated clients to be more adherent to their treatment.

• Focusing on more prevalent NCDs can lead to highest health impact

• The model has allowed shifting of NCDs management and monitoring to nurses

• The model opened the room to integrate other screening, preventive and curative services, including but not limited to Cervical Cancer, FP, and TPT.

• Prepacking of medicines has consistently reduced client’s waiting time and health provider’s workload.
Challenges

- Inconsistent supply of NCDs medicines has limited medicines refills to only two months.
- This can also affect the scalability of the model to more facilities.
- There is also limited number of screening tools (BP machines, Glucometer) at the ART unit.
To compare adherence to NCDs treatment and the outcome amongst clients enrolled in the DSD model compare to those who are not enrolled

There is an urgent need to consider lessons learned during the pilot to scale-up NCD and HIV integrated models in order to confront these two public health problems

The model has to use evidence-based algorithmic approaches to favor task shifting

Facility need to have access to point-of-care diagnostics to systematically identify clients with both NCDs and HIV

Recipient of care should be empowered for self-management, this will allow integration of NCDs services in community based models

There is a need to use a cascade approach for monitoring and evaluating programs to ensure that coverage and quality are achieved for both HIV and other condition/service