Maximizing Drug Epidemiology Networks: South African Case Study

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South African Medical Research Council
The South African Medical Research Council recognizes the catastrophic and persisting consequences of colonialism and apartheid, including land dispossession and the intentional imposition of educational and health inequities.

Acknowledging the SAMRC’s historical role and silence during apartheid, we commit our capacities and resources to the continued promotion of justice and dignity in health research in South Africa.
SACENDU is a network of researchers, practitioners and policy makers from all areas of South Africa. Members of SACENDU meet every six months to provide community-level public health surveillance of alcohol, tobacco and other drug (ATOD) use trends and associated consequences through the presentation and discussion of quantitative and qualitative research data.

Through this initiative, SACENDU provides descriptive information on the nature and pattern of ATOD use, emerging trends, risk factors associated with ATOD use, characteristics of vulnerable populations, and consequences of ATOD use in South Africa.

https://www.samrc.ac.za/intramural-research-units/MASTRU-sacendu
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**SACENDU OBJECTIVES**

1. To identify changes in the nature and extent of AOD use and emerging problems.
2. To identify changes in alcohol and other drug-related negative consequences.
3. To inform policy, planning and advocacy efforts at local and other levels.
4. To support networks of local role players in the substance use area.
5. To stimulate research in new or under-researched areas that is likely to provide useful data to inform policy/planning decisions.
6. To facilitate South Africa’s full participation in international fora focusing on the epidemiological surveillance of drug use.

Similar to other networks like WENDU and feeds into PAENDU and the UNODC’s ARQ.
1996 -2016 Treatment Demand Data
2016 – Strengthening through the introduction of:

01 Data from Community Harm Reduction Services

02 Service Quality Measures (SQM)

03 Evidence-Based Information Sharing and Research Uptake

04 Pilot Phase - Data from Community Health Clinics + Correctional Services

05 Waste-water epidemiology and illicit drugs – February 2024
SACENDU

Services Quality Measures (SQM)

Wastewater Epidemiology

Treatment Demand data

Seizures data

Partner with ITTC/DCS on collecting data at DCSs

Harm Reduction Data on PWUD/PWID/OST access and screening for TB/HIV/Hepatitis -

Evidence-based information sharing and Research Uptake

Collected since 1996

Collected 1996 – 2004/5

SaMRC
FOR US TO UNDERSTAND HOW TO GO ABOUT DEALING WITH SUD - WE NEED GOOD, VALID AND RELIABLE RESEARCH DATA
A HIGH PROPORTION OF THE DISEASE BURDEN ATTRIBUTABLE TO SUDS IS DUE TO INCREASED RISK OF OTHER HEALTH OUTCOMES.

South Africa - HIV/AIDS accounts for 51.9% of deaths in 15-44 age group. Followed by interpersonal violence (8.7%), road injuries (6.4%), TB (5.3%) and self-inflicted injuries (2.8%). NCDs older age groups - ischaemic heart disease (4.8) and diabetes mellitus (4.0%).
COMMUNITY HARM REDUCTION SERVICES:

• Harm reduction - a public health strategy and set of practical, evidence-based approaches aimed at reducing the negative consequences associated with certain behaviors, particularly high-risk behaviors, without necessarily requiring individuals to completely abstain from those behaviors.

• 2017 - Partnered with service providers who render these services and now able to report on various harm reduction initiatives in SA including NSE, OST, HIV/TB/Hepatitis and cascades of care.

• Data sharing agreements
The Service Quality Measures (SQM) initiative is a performance measurement system designed specifically for South Africa’s substance use treatment services.

This system collects data on patient-reported outcomes of treatment and on perceived access and process of care.

The system uses three forms (SACENDU, SAATSA and Discharge) to generate information on a core set of indicators of treatment quality.
## Service Quality Measures (SQM)

### Treatment Coverage for People with Substance Use Disorders (SUD) in South Africa - Representative Community Household Surveys in 26 Countries

<table>
<thead>
<tr>
<th></th>
<th>12-month diagnosis</th>
<th>Perceived need for treatment</th>
<th>Minimally adequate Rx for SUD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global</strong></td>
<td>2.6 (± 0.1)</td>
<td>39.1 (± 1.1)</td>
<td>7.1 (± 0.5)</td>
</tr>
<tr>
<td><strong>LMIC</strong></td>
<td>2.0 (± 0.2)</td>
<td>31.5 (± 2.2)</td>
<td>1.0 (± 0.4)</td>
</tr>
<tr>
<td><strong>UMIC</strong></td>
<td>3.3 (± 0.2)</td>
<td>35.6 (± 2.2)</td>
<td>4.3 (± 0.8)</td>
</tr>
<tr>
<td><strong>HIC</strong></td>
<td>2.6 (± 0.1)</td>
<td>43.1 (± 1.4)</td>
<td>10.3 (± 0.8)</td>
</tr>
<tr>
<td><strong>South Africa</strong></td>
<td>5.8 (± 0.6)</td>
<td>39.3 (± 3.9)</td>
<td>2.3 (± 0.1)</td>
</tr>
</tbody>
</table>

3 Potential Barriers:
- Awareness/perceived treatment need,
- Accessing treatment once a need is recognized,
- Compliance (on the part of both provider and client) to obtain adequate treatment.

*Degenhardt et al. World Psychiatry 2017; 16:299-307*
Step 1: On admission inform client about SQM initiative

Step 2: Complete the SACENDU form on enrolment into the programme

Step 3: Administer the SAATSA

If programme ≤ 6 weeks: Complete SAATSA after 3rd week.

If programme > 6 weeks: Complete SAATSA after 4th week.

Step 4: Complete Discharge Form

Completed by counsellor on formal discharge or if client drops out (30 days with no client contact).

- Principle: Minimal disruption to treatment process
- Build on existing practices: by integrating with pre-existing SACENDU system
NON-COMMUNICABLE DISEASES (NCDs) AND SUBSTANCE USE DISORDERS

- NCDs defined as any medical condition or disease that is non-infectious and non-transmissible among people.
- The NCD risk factors such as high blood pressure, poor diets, air pollution, high body-mass index, tobacco smoking, alcohol and drug use, high fasting plasma glucose, high total cholesterol, and low physical activity are the top 10 global risk factors for death.
- Cardiovascular diseases, chronic respiratory diseases, diabetes, and cancers share a set of four key behavioral risk factors: tobacco use, harmful alcohol use, physical inactivity, and unhealthy diet.

→ Screening for NCDs and referral to care becoming increasingly important.
Over the next decade, it is projected that NCD associated DALYs will surpass that contributed by infectious diseases, perinatal and maternal conditions combined.
• Substance during pregnancy
• Residency – who people live with
• Visits to GP
• Prior treatment
Research Uptake and Evidence-Based Information Sharing
South African Community Epidemiology Network on Drug Use

TERMS OF REFERENCE

Purpose
The role of the SACENDU Knowledge and Information Sharing arm is to provide direction and leadership by providing four opportunities per annum for research and other findings to be translated into practice, policy or further research.

Objectives
1. Implementing research findings by supporting advocacy efforts and sharing knowledge that will align policy makers, service providers and community representatives to make informed decisions.
2. Strengthening the SACENDU network through the dissemination of findings to provide quality services.

Approach
1. Provide leadership and guidance and identify priorities for capacity development opportunities.
2. Strengthen knowledge and understanding in respect of science, tobacco and other drugs.
3. Not part from any form of treatment that does not improve or mitigate certain treatment or prevention modalities, but align with evidence-based information.
4. Integrating research into practice.
5. Encouraging partnerships by engaging with relevant institutions and initiatives to secure the collaboration and presentation of evidence for capacity development opportunities.
6. Consultation and engagement of evidence-based practitioners.
7. Provision for workshops to relevant stakeholders.

Membership
The SACENDU Terms and will manage the Capacity Development arm, and smaller Task forces will be created with internal and external experts in the area of learning to coordinate Capacity Development workshops.

Meetings
Meetings will be chaired by the SACENDU Principal Investigators. The committee will operate through email exchange, and video call/telconference when needed. Meeting agendas and minutes will be provided by the SACENDU team.

Amendment, Modification and Variation
This Terms of Reference can be amended, varied or modified in writing after consultation with its members.

OST and MMT
Harm Reduction
Patient Management – Co-morbidities
TBC

Steering Committee – stakeholders in treatment and research and practice
Mental health, Alcohol, Substance use and Tobacco Research Unit (MAST-RU)

Pioneering research to promote mental health and reduce the harmful effects of substance use in South Africa

Synthesize evidence
Synthesize primary alcohol, tobacco and other drug research into evidence syntheses

Produce evidence
Undertake and disseminate primary research on alcohol, tobacco and other drugs

Evaluate and improve policy and practice
Monitoring and evaluation of alcohol, tobacco and other drug policies and programmes

Knowledge translation
Use existing evidence to inform decision support products including guidelines, guidance, policy briefs and evidence summaries, and identify gaps in primary research

Disseminate evidence to stakeholders
Research and evidence syntheses regarding alcohol, tobacco and other drugs disseminated to decision makers, health care providers, clients/patients and the public

Implement evidence
Policies and programme, such as SACENDU, informed by MAST-RU research

Adapted from: http://magicproject.org/research-and-tools/the-evidence-ecosystem/
You are invited to attend 4 workshops on the topic **Managing co-morbidities in substance use treatment & The importance of aftercare in substance use treatment** hosted by the SACENDU Research Uptake and Evidence-Based Information Sharing Platform.

<table>
<thead>
<tr>
<th>DATE</th>
<th>SESSION TITLES</th>
<th>SPEAKERS</th>
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</table>
| 3\(^{rd}\) November 2023 @ 10:00 – 11:30 | • Introduction to Co-morbidities in substance use treatment  
• Mental health and substance use: patient management | • Prof Lize Weich  
• Prof Jason Bantjes |
| 10\(^{th}\) November 2023 @ 10:00 – 11:30 | • Infectious diseases and substance use: patient management | • Dr Ashraf Grimwood  
• Dr Tara Carney |
| 17\(^{th}\) November @ 10:00 – 11:30 | • Non-communicable diseases and substance use: patient management | • Prof Nasheeta Peer  
• Dr Kim Nguyen |
| 24\(^{th}\) November 2023 @ 10:00 – 11:30 | • The importance of aftercare: a presentation of effective models | • Mr Warren Burnhams  
• Mr Roger Weimann |

Any person interested in learning more about co-morbidities, substance use, and aftercare is encouraged to attend these interactive workshops. Please contact Kamogelo.Moletsane@mrc.ac.za or Jodilee.Erasmus@mrc.ac.za for additional info.
SA has an established WW surveillance network established during the COVID 19 pandemic.

Through collaborative effort, analyzing municipal wastewaters at water treatment plants (WWTPs) in the Western Cape for drugs and their metabolic products to calculate approximate community consumption of selected illicit drugs and tobacco. *cocaine, methamphetamine, heroin, cannabis and nicotine*

• Estimate the drug use patterns within communities serviced by these sewage systems in near real time,

• To develop testing protocols to facilitate the routine collection of data on additional illicit and/or over the counter and prescription medications.
WE NEED TO CONTINUOUSLY STRENGTHEN OUR SURVEILLANCE SYSTEMS....

**Public Health and Safety**: Strengthening illicit drug epidemiology allows for better understanding of the extent of these problems and enables targeted interventions to reduce harm and promote safety.

**Harm Reduction**: A strong illicit drug epidemiology system can inform harm reduction strategies, including needle exchange programs, supervised injection sites, and naloxone distribution to reverse opioid overdoses.

**Surveillance of Emerging Trends**: Illicit drug markets are constantly evolving, with new substances and drug-use patterns emerging regularly.

**Resource Allocation**: By understanding the prevalence and patterns of illicit drug use, governments and healthcare organizations can allocate resources more effectively to address drug-related issues, such as treatment programs, prevention efforts, and law enforcement.

**Policy Development**: Data from illicit drug epidemiology systems inform evidence-based drug policies and regulations.

**Prevention and Education**: Reliable data on illicit drug use can guide prevention efforts and educational campaigns aimed at reducing drug initiation among young people and promoting responsible drug use behaviors.

**Identification of High-Risk Populations**: Strong epidemiological data can help identify and target high-risk populations.

**Reducing the Stigma of Drug Use**: Accurate information about illicit drug use can contribute to more empathetic and evidence-based public discourse, reducing the stigma associated with substance use disorders.

**International Cooperation**: Illicit drug use is a global issue, and sharing epidemiological data helps countries collaborate to address transnational drug problems, such as drug trafficking and international drug policy.

**Monitoring the Impact of Policies**: Illicit drug epidemiology provides a means of evaluating the effectiveness of drug policies over time.
THANK YOU