## Policy and Practice of Opioid Agonist Treatment (OAT) in 23 Countries

Tanya Calvey<sup>1,2</sup> PhD, Arpit Parmar<sup>3</sup> DM, Preethy Kathiresan<sup>4</sup> DM, Sagun Ballav Pant<sup>5</sup> MD, Honest Anaba<sup>6</sup> MBBS, Hossein Mohaddes Ardabili<sup>7</sup> MD, **Lisa Dannatt**<sup>8</sup> MMed, Samer El Hayek<sup>9,10</sup> MD, Pablo Fielitz<sup>11</sup> MD, Francina Fonseca<sup>12</sup> PhD, Paolo Grandinetti<sup>13</sup> PhD, Djibril I.M Handuleh<sup>14,15</sup> MD, Florence Jaguga<sup>16</sup> MMed Psych, Jiang Long<sup>17</sup> PhD, Joana Mihani<sup>18</sup> PhD, Shawna Narayan<sup>19</sup> MSc, Joy Onoria<sup>20</sup> PhD, Benjamin Petruželka<sup>21</sup> PhD, Rodrigo Ramalho<sup>22</sup> PhD, Arnt Schellekens<sup>23</sup> PhD, Florian Scheibein<sup>24</sup>, Paulo Seabra<sup>25</sup>, Alexandre Kieslich da Silva<sup>26</sup> MA, Tomohiro Shirasaka<sup>27</sup> PhD, Roberta Testa<sup>28</sup> MD, Tarun Yadav<sup>29</sup> MD, Anne Yee<sup>30</sup> PhD, **Abhishek Ghosh<sup>32</sup>** MD, DM



<sup>&</sup>lt;sup>2</sup>Neuroscience Institute, University of Cape Town, South Africa







<sup>&</sup>lt;sup>8</sup>Department of Psychiatry, University of Cape Town, South Africa

<sup>&</sup>lt;sup>32</sup>Postgraduate Institute of Medical Education and Research, Chandigarh, India

## Study Background

- Opioids → most severe drug-related harm, including fatal overdoses, contributing to twothirds of all drug-related deaths globally (WDR'24)
- Critical need for effective and accessible treatment and management of OUD
- OAT (methadone and buprenorphine) reduce harm:
  - ↓ illicit opioid use
  - √ risk of overdose
  - ↑ social functioning and quality
- Access to OAT and maintaining adherence face numerous barriers
  - Regulatory
  - Financial
  - Social

## **Study Aim**

 Significant variations in OAT practices and policy exist in different countries

 We sought to understand these differences in the regulatory landscape, availability, and practices related to OAT

## Study Design and Methods

 We distributed a survey to NECPAM and ISAM NeXT from January to June 2024

- Designed according to "Opioid agonist treatment guiding principles for legislation and regulations" developed by the Pompidou group and Council of Europe
- Membership to both networks require demonstration of expertise in the field of addiction medicine

## Study Design and Methods

- Eligibility criteria → active practice in addiction medicine and/or at least five years of experience in OAT services, research, or policy
- Convenience sample from a pool of addiction medicine experts
- Respondents from 23 out of a total of 35 countries completed the survey
- Twenty-six respondents from 23 countries representing all World Health Organization regions

### Methods

The survey included both closed and openended questions covering the following key areas:

## 1) Country's Opioid Use/Dependence Data

- Prevalence of opioid use, opioid use disorder, injection opioid use
- Prevalence of related health conditions such as Human immunodeficiency virus (HIV), hepatitis C (HCV), and hepatitis B (HBV)

#### 2) **National Policy on Drugs**

- National drug policies
- Harm reduction strategies



## Methods

#### 3) Availability and Access to OAT

- Availability and formulations of OAT
- Practice of telemedicine and take-home dosing for OAT
- 4) Funding and Remuneration of Healthcare Services

- 5) Training, Research, and Innovation
  - Training healthcare professionals to prescribe and provide OAT
- 6) Recognition of OAT medication on National Essential Medicines lists

## Data Analysis and Validation

- Data reliability was ensured by crossreferencing published literature and national-level policy documents
- Each respondent had the chance to correct their country-level data four times
- Due to the heterogeneity of the data, quantitative calculations were not always possible but where possible, were analyzed and compared using descriptive statistics
- Qualitative data were compiled and summarized as a descriptive narrative by TC

## Results -Respondents

- Most respondents were medical doctors (16/26) specializing in addiction medicine
- 6/26 were researchers
- All had 10+ experience in addiction medicine
- Responses and countries grouped into regions
  - Asia (Japan, China, Malaysia, Nepal, India, Iran, Lebanon)
  - Europe (Albania, Czech Republic, Netherlands, Italy, Spain, Portugal, Ireland)
  - Africa (South Africa, Nigeria, Kenya, Somaliland)
  - South America (Brazil, Uruguay)
  - North America (Canada)
    - Australasia (Australia and New Zealand)



## National data on opioid use disorder, injection, and overdose

- Issues with **lack of data** fell into the following themes:
- Lack of national data on opioid use and especially OUD in Asian, African and South American countries
- Heterogeneity in reporting of illicit and/or licit opioids
- Heterogeneity of reporting 
   number of individuals/percentage population /percentage of illicit opioid users who report a loss of control over their use







## National data on opioid use disorder, injection, and overdose

- Opioid injection prevalence data were limited
- Data for HCV and HBV prevalence were similarly scarce, with only a few countries reporting relevant statistics
- Opioid-related overdose data from national surveys available mainly in North America and Europe



#### **Availability and Access to OAT**

#### All respondents reported that methadone, buprenorphine, or buprenorphine/naloxone are registered as OAT

- Iran also registers opium tincture
- Canada includes Slow-Release Oral Morphine, diamorphine, and hydromorphone
- Methadone is the most commonly prescribed OAT in 14/23 countries
- 5/23 use buprenorphine/buprenorphinenaloxone more commonly
- Buprenorphine film is available in 6/23
- Long-acting depot buprenorphine in 7/23

#### **Availability and Access to OAT**

#### Urine drug testing mandatory in 8/23

- Trained and supported nurse practitioners can prescribe OAT in 4/23
  - Canada, New Zealand, Australia, and the Netherlands
- Written informed consent is required in 18/23 countries
- OAT is not available in prison in 7/23



#### **Telemedicine-based OAT Regulations**

- Respondents indicated that:
- Official telemedicine guidelines or policies in 9/23
- Only 5/9 allow telemedicine-based OAT dispensing all in NA-AS
  - all the OAT medications can be prescribed via telemedicine routes except for New Zealand where only methadone can be prescribed
- The Netherlands does not have telemedicine guidelines but still allows for telemedicine-based OAT dispensing



#### Take-home dosage of OAT

### 18/23 reported to allow take-home dispensing of methadone

- 16 permit take-home buprenorphine
- 14 Buprenorphine-naloxone
- Duration of methadone take home varies considerably:
  - Methadone 1 day in Nepal, 30 days in Spain and Uruguay, 4 weeks in SA mainly in private





# Results- OAT coverage and funding

- National data for coverage of OAT per 100 people who inject opioids were only available in 12 countries
- National data were absent for African and South American countries
- We input data from Colledge-Frisby et al. (2023)
- Average 50,71% coverage of OAT per 100 people who inject opioids
- Higher averages in NA-AS and European countries (67,67% and 65% respectively)
- Lower averages in Asia (40%) and Africa (2%)
- No data were available for South America
- 16/23 indicated that OAT is fully funded by public health or NGO
  - Exceptions: China, Japan, Lebanon, South Africa, Nigeria, and Somaliland

## Results-Training needs

- The majority of respondents (14/23) indicated that physicians must receive special training to prescribe OAT
- 8/23 that trained pharmacists can also dispense OAT
- 5/23 integrated OAT training into the undergraduate medical curriculum
- 6/23 OAT training occurs at the postgraduate level
- 8/23 reported no OAT training available for physicians
- 9/23 indicated that undergraduate training is available for pharmacists who dispense OAT

#### **National Essential Medicines Lists**

## Results

 Among the countries with a National Essential Medicines List, eight (8/15) respondents indicated that some OAT medications are included

5/15 indicated none

 SA has methadone on EML but for inpatient acute opioid withdrawal only



### **Discussion**

- Harm reduction policy does not always translate to a scaling-up of harm reduction services indicated by low coverage in India and Africa
- Urgent need to expand OAT access in low- and middle-income Asian, South American and African countries
- Facing regulatory and funding challenges
- Long-acting depot buprenorphine success in Australia
- Trained and supported nurse practitioners
   prescribing OAT is a progressive step forward in
   lowering barriers and improving access to OAT →
   especially to rural and underserved populations
  - Notably, these countries had some of the highest percentages of OAT coverage for PWID

### **Discussion**

Our "wishlist" for improving addiction care and developing standardized international best practices:

- National availability of methadone, buprenorphine (long-acting depot), naloxone, naltrexone
- Trained nurse practitioners' prescribing ability
- WHO-aligned enrolment criteria
- Telemedicine for remote prescriptions
- Standardized take-home dosing policies
- Government/NGO funded OAT
- Undergraduate OUD training for doctors and pharmacists

## Conclusion

 Global disparities in OAT regulations persist, with limited coverage in low and middle income countries

 Improving training, telemedicine access, and essential medicines inclusion can enhance global OAT accessibility and quality



# South African National Data: Opioid use Injecting use Overdoses

#### SA data is drawn from

#### SACENDU treatment data

- Registered public substance treatment facilities
- Community based harm reduction services
- Minimal private treatment data (in and outpatient)
- ? Unregistered rehabs

Household surveys targeting key populations



## South African Policy

#### National Drug Masterplan 2019- 2024

- Policy reflects concerns regarding drugs harms
- Sets out OAT, harm reduction and management of comorbidity
- Implementation still focusses on detox and referral to psychosocial treatments

#### Essential Medicines list

- OAT available for detoxification only
- In practice, not every hospital has access



# Availability and Access in South Africa

#### EML- inpatient detox only

#### Private and public clinics:

- Variable
- Evidence based and integrated
- Ad hoc
- Medications
- Methadone
- Buprenorphine/ naloxone
- Buprenorphine
- Concerns
- Variable prescribing practices
- Not funded by medical aids
- Medication stock outs

#### Sultan Bahu

- Western Cape Pilot project
- Good retention in care and short-term recovery rates

#### COSUP

- City of Tshwane pilot project
- Good retention in care comparable to other LMICs

#### **NACOSA**

- Funds several NGO programs involved in harm reduction
- Positive outcomes



# Tele Healthcare and OAT in South Africa

Telehealth guidelines overseen by HPCSA

No dedicated telehealth OAT services

#### Public service barriers:

- Data and cellular access
- Privacy

#### Private:

• Funder rules may differ



## OAT Training in South Africa

## SAAMS

- In person
- Prescribers
- Online guidelines

## **TBHIV** Care

- Online
- Broad group of practitioners
- Case based



## Closing Thoughts

OUD in SA poses a significant public health concern

Epidemiological data exists and can be further strengthened

There is a disconnect in drug policy and practical on the ground care

OAT is limited in the EDL with variable OAT practices in public, private and NGO settings

Efforts have been made to offer evidence based OAT training

Despite advocacy, government buy in, budget and rollout of OAT is still needed

#### References

Herman AA, Stein DJ, Seedat S, Heeringa SG, Moomal H, Williams DR. The South African Stress and Health (SASH) study: 12-month and lifetime prevalence of common mental disorders. S Afr Med J. 2009 May;99(5 Pt 2):339-44. PMID: 19588796; PMCID: PMC3191537.

Pluddemann A, Dada S, Williams Y, Bhana A, Pereira T, Nel E, et al. Monitoring alcohol and drug abuse treatment admissions in South Africa: July-December 2009: phase 27: SACENDU report back meetings, May 2010; 2010 (Accessed September 5, 2018)

Morgan, N., Daniels, W., & Subramaney, U. (2019). A prospective observational study of heroin users in Johannesburg, South Africa: Assessing psychiatric comorbidities and treatment outcomes. *Comprehensive psychiatry*, 95, 152137.

Petersen, Myers, van Hout, Plu demann, & Parry, 2013; Statistics South Africa, 2015)

Scheibe, A., Makapela, D., Brown, B., dos Santos, M., Hariga, F., Virk, H., ... & Lehtovuori, R. (2016). HIV prevalence and risk among people who inject drugs in five South African cities. *International Journal of Drug Policy*, 30, 107-115.

Harker, N., Lucas, W. C., Laubscher, R., Dada, S., Myers, B., & Parry, C. D. (2020). Is South Africa being spared the global opioid crisis? A review of trends in drug treatment demand for heroin, nyaope and codeine-related medicines in South Africa (2012–2017). *International Journal of Drug Policy*, 83, 102839.

Dannatt, L., Cloete, K. J., Kidd, M., & Weich, L. (2014). Frequency and correlates of comorbid psychiatric illness in patients with heroin use disorder admitted to Stikland Opioid Detoxification Unit, South Africa. South African Journal of Psychiatry, 20(3), 77-82.

Wilson, M., Brumwell, A., Stowe, M.J. *et al.* Personal experience and awareness of opioid overdose occurrence among peers and willingness to administer naloxone in South Africa: findings from a three-city pilot survey of homeless people who use drugs. *Harm Reduct J* **19**, 17 (2022).

Degenhardt, L., Whiteford, H. A., Ferrari, A. J., Baxter, A. J., Charlson, F. J., Hall, W. D., ... & Vos, T. (2013). Global burden of disease attributable to illicit drug use and dependence: findings from the Global Burden of Disease Study 2010. The Lancet, 382(9904), 1564-1574.

Coovadia, H., Jewkes, R., Barron, P., Sanders, D., & McIntyre, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. The lancet, 374(9692), 817-834.

Khan, Z., Cloete, K. J., Harvey, J., & Weich, L. (2014). Outcomes of adult heroin users v. abstinent users four years after presenting for heroin detoxification treatment. South African Journal of Psychiatry, 20(3), 82-87.

Michie, G., Hoosain, S., Macharia, M., & Weich, L. (2017). Report on the first government-funded opioid substitution programme for heroin users in the Western Cape Province, South Africa. South African Medical Journal, 107(6), 539-542.

Hugo, J., Shelly, S., Lalla, S., Kroucamp, L., Gloeck, N., Mohale, M., ... & Marcus, T. S. (2020). Harm reduction in practice–The community oriented substance use programme in Tshwane. *African Journal of Primary Health Care and Family Medicine*, 12(1), 1-6.