

12th International  
Conference on  
HIV TREATMENT  
AND PREVENTION  
ADHERENCE



# Adherence 2017

JUNE 4-6, 2017 • MIAMI

Jointly sponsored by



Postgraduate Institute  
for Medicine



# Short Message Service (SMS) reminders improve patient on-time pill pick-up of their antiretroviral medicines in Namibia

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# Outline

- Background
- Methodology
- Results
- Conclusion
- Success story
- Acknowledgements



# Background

- Namibia profile
  - 210,000 people living with HIV (PLHIV)<sup>i</sup>
  - 13.3% prevalence rate in adults aged between 15 and 49 years old
  - 84% (158,000) patients on ART as of Sep 2016<sup>ii</sup>





## Background ...

- Ministry of Health and Social Services (MoHSS) data shows:
  - lateness of pill pickup accounted for 30% (177/589) of patients interviewed while 67% (395/589) had missed their dose due to forgetfulness<sup>i</sup>
  - Retention at 12 months for quarter Jul-Sep 2015 was 73.9% (adults) and 82.3% (pediatrics)<sup>ii</sup>
- Namibia boasts strong mobile network coverage
  - with affordable voice call and text message services
  - has recently introduced 4G in major cities

Sources: (i) Namibia ART Adherence Baseline Survey Report, 2013 (ii) Quarterly ART Feedback Report (Jul – Sep 2016), MoHSS, Namibia



## Background ...

- Data from the Electronic Dispensing Tool (EDT), implemented through the USAID-funded Systems for Improved Access to Pharmaceuticals and Services (SIAPS) project, shows that
  - patients miss their pharmacy appointments and
  - patients exhibit sub-optimal adherence rates by pill count



# Methodology

- SIAPS supported the MoHSS
  - to implement the EDT-based pharmacy appointment and adherence reminder service at ten sites (in six of the Namibia's 14 regions)
  - Sites were selected using cluster randomization based on their adherence scores in terms of two HIVDR early warning indicators (EWIs) – EW1 on-time pill pickup and EW2 retention in care at 12 months
  - pharmacy and clinical teams including counsellors were oriented on the recruitment process
  - messages were translated into 7 local languages



## Results

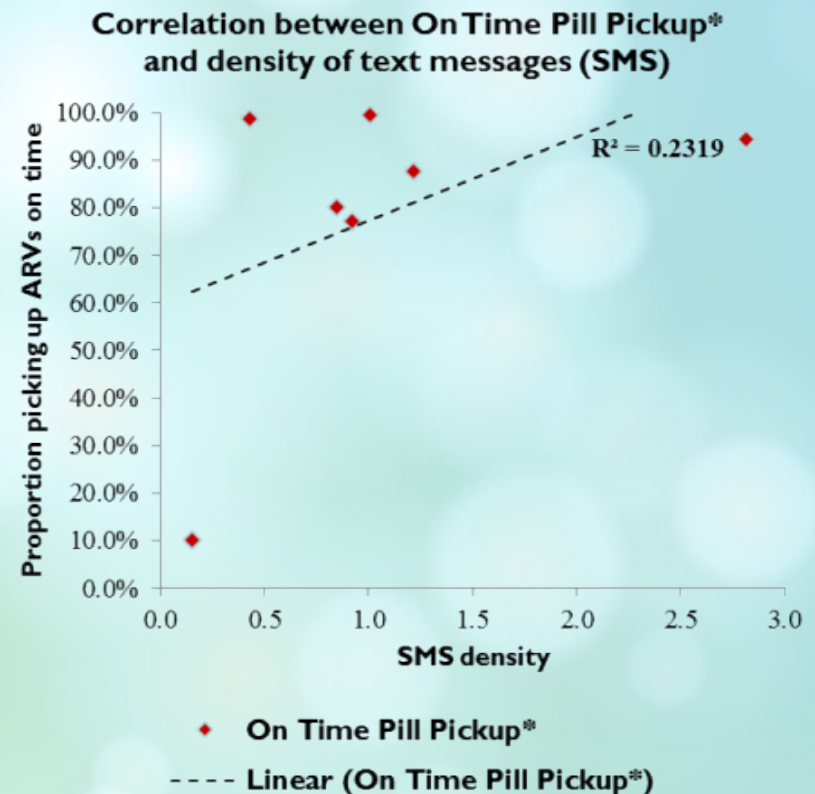
- By Oct 2016
  - Seven (7) ART sites had successfully implemented the appointment reminder service
  - 40% (8,147/20,377) of patients had enrolled for the service





## Results ...

- Between Oct – Dec 2016 more than 9,000 text messages were sent out
- A strong correlation between patients picking up their ARVs on time and the density of SMS reminders was observed.

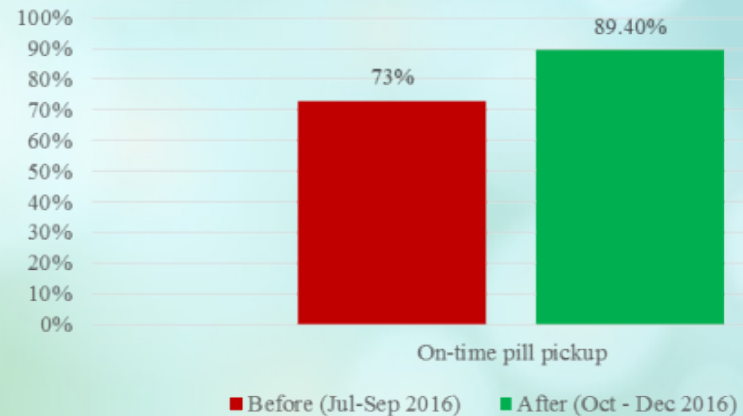




## Results ...

- By Dec 2016, on-time pill pickup had improved from 73% in the previous quarter to 89.4% for patients enrolled for the SMS reminder service

Improvements in On-time pill pickup  
by quarter for enrolled patients  
(n=8147)





## Conclusion

- The SMS pharmacy appointment reminders
  - improved on-time pill pickup for patients who had enrolled for the service.
  - is recommended for roll out to all 51 main sites in Namibia
  - and be integrated into the routine functioning of the ART program in Namibia
- MoHSS should partner with mobile network operators to optimize the scale up of the reminder service.



## Success story

- Comments from some of the patients interviewed at one of the ART sites:

*“Before the SMS, I would still honor my appointments because I always check in the health passport. Now it is even easier because of the SMS that comes directly to my cell phone,” ... said. “It is a good back-up system.”*

*“I am happy to receive the SMS because it reminds me to go to the pharmacy to pick up my medicines,” she said, adding that it is quite easy to forget an appointment, especially when she is busy.*



# Acknowledgements

- MoHSS – Directorate of Special Programs
- MoHSS – Directorate of Tertiary Health Care and Clinical Support Services
- MoHSS – Division Pharmaceutical Services
- MoHSS - main ART / EDT sites
- MoHSS – Adherence Technical Working Group and the TAC
- U.S. Agency for International Development



## Abstract submission

- **Key Terms:** Short Message Services (SMS), Adherence, HIVDR
- **Track:** Antiretroviral Therapy Medication Adherence
- **Themes:** Intervention development, implementation, and/or outcomes
- **Key Populations/Settings:** Resource limited settings, Treatment experienced



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