



# An Evaluation of the Use of Live and Asynchronous Video Technology for Directly Observed Therapy (DOT) for the Treatment of Tuberculosis (TB) in Rhode Island

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## Background:

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RI Department of Health (RIDOH) used standard DOT (SDOT) to deliver treatment.



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Funding & staff size decreased while DOT volume increased; RIDOH introduced live Skype video DOT (VDOT).

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RIDOH used Skype & evaluated live VDOT.



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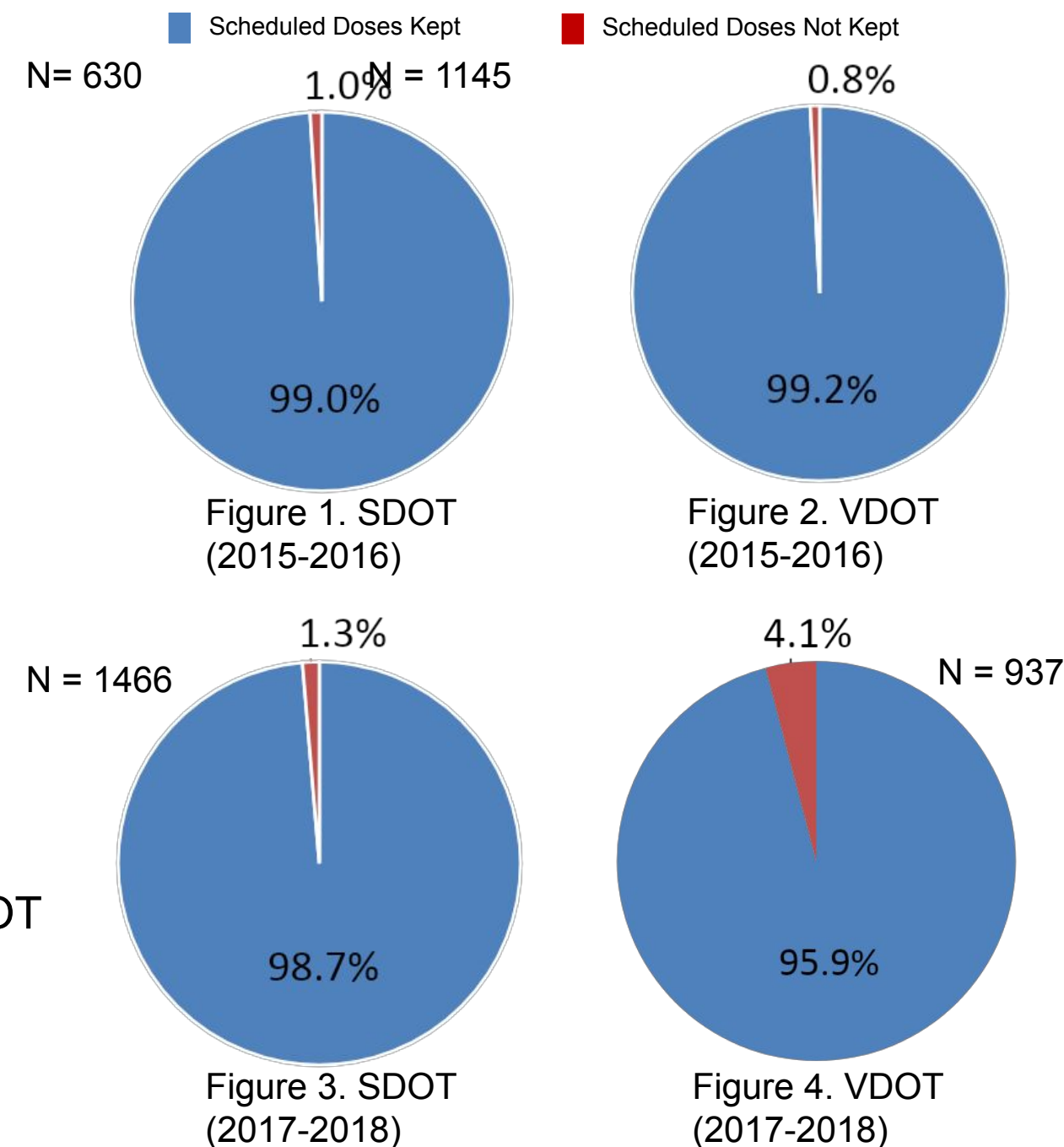
RIDOH transitioned to asynchronous VDOT using the emocha Mobile Health platform.

**emocha**  
MOBILE HEALTH INC.

## Results:

- 16 patients enrolled in Skype VDOT were evaluated for adherence and satisfaction outcomes in 2016.
- 23 patients case-managed through emocha to date.
- 6/23 patients use emocha for VDOT.
- Adherence to treatment was  $\geq 95.9\%$  for all 3 methods of direct observation therapy.
- emocha helped improve care coordination with the TB Clinic, as staff could view and enter DOT data as needed.
- Use of VDOT can have limitations and may not be possible for certain patient groups.

### Adherence Metrics (Number of Doses)

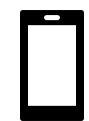


## Pros of DOT:



- Provider & patient form a stronger relationship.
- Dynamic assessment of home environment.
- Opportunity to discuss symptoms & side effects.
- Adherence may be higher due to the daily visit and encouragement from the healthcare worker.

## Pros of VDOT:



- RIDOH and TB Clinic staff can monitor adherence despite geographic barriers.
- Less intrusive than a daily home visit.
- Increased privacy.
- Offers flexibility and patient is in control of their own care.

**Conclusion:** Adherence to treatment was achieved at  $\geq 95.9\%$  for all 3 methods of DOT. Video technology offers benefits and drawbacks related to client engagement, ease of use, and data management. Additional uses of emocha include cohort presentation and data analytics. SDOT allows for engaging with patients who value daily interaction while VDOT offers increased flexibility for patients and providers.



The TB Team @ RIDOH

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## Methods:

- Analysis of patient adherence to treatment on SDOT vs. VDOT (Skype or emocha).
- Evaluation of RIDOH & The Miriam Hospital RISE TB Clinic staff satisfaction through informal interviews.

**Acknowledgement :** Rhode Island Department of Health uses the emocha Mobile Health platform for asynchronous video DOT

**Disclaimer:** The content, proposals, and opinions within this document are those of the authors and do not necessarily represent the official position of or endorsement by the Centers for Disease Control and Prevention.