

Utilizing Data to Establish an Evidence-based Statewide Asynchronous Video Directly Observed Therapy Program

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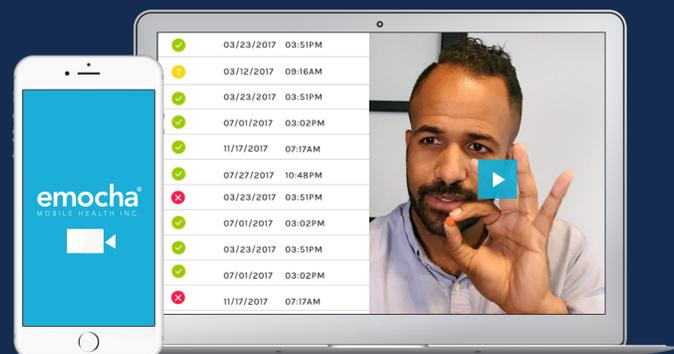
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PURPOSE

The purpose of this project was to examine the feasibility of a state supported programmatic expansion of VDOT from an academic medical center research project to all Maryland local health departments.

BACKGROUND

In 2015 the Maryland Department of Health (MDH) Institutional Review Board approved a NIH-funded 12-month study involving 3 Maryland local health department (LHD) tuberculosis (TB) programs implementing an asynchronous video directly observed therapy (VDOT) platform with both a patient-facing mobile application and provider-facing web portal. This demonstrated on average 94% medication adherence while generating \$1,391 in cost savings per patient per standard 6-month TB medication regimen. All study LHDs continued its use after the study ended. Based on National Institutes of Health study results, the Maryland Center for TB Control and Prevention (CTBCP) explored a sustainable means to expand VDOT access with a primary goal of having one HIPAA-compliant VDOT platform for use by all Maryland LHDs, thus facilitating uniformity of VDOT platform capacity and VDOT practices across jurisdictions, potential purchase cost savings, and ability to monitor statewide utilization.



METHODS



Patient utilization year-to-year was determined using .csv exports from the study platform in continued use by 3 LHDs. Multi-disciplinary workgroups were formed to determine desired specifications of a statewide platform. VDOT guidelines, were also updated with input from academic medical center representatives, LHD staff, and state TB program nurse and physician consultants. MDH fiscal staff were consulted for availability of funding and contract procurement options.



RESULTS



Between June 2016 and January 2019, over 150 patients used the platform for TB treatment monitoring (both disease and infection); **over 13,500 videos have been assessed** by LHD staff. Between June 2017 and April 2018 patient use of the platform increased 27%. In January 2019, state TB guidelines for enrolling patients into VDOT were expanded to reflect knowledge gained during and after the study period.

The platform is now available statewide in a non-research capacity; 12 of Maryland's 24 jurisdictions are currently using or planning to use the platform as of January 2019.

CONCLUSIONS



The Maryland VDOT experience represents what can be achieved when participating in research with local and academic partners and then engaging in active inter- and intra-disciplinary collaboration to maximize research findings; establishing an evidence-based, cost-effective standardized approach to enhanced patient case management and adherence to treatment.

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