GLOBAL FUND C19RM REINVESTMENT: DIGITAL ADHERENCE TECHNOLOGIES (DATS)

Considerations for NTP's and Global Fund Principal Recipients on the inclusion of digital adherence technologies (DATs) in the C19RM reinvestment in addition to prioritized key areas.

**Introduce and scale-up digital TB treatment support**

[www.tbdigitaladherence.org](http://www.tbdigitaladherence.org)
DIGITAL ADHERENCE TECHNOLOGIES

Digital adherence technologies (DATs) are tools designed to support people with TB with taking their medications. Compared to traditional directly observed therapy (DOT), the tools allow for people to take their medications at a place and time that is convenient to them, while remaining connected to their healthcare provider. For healthcare providers, DATs can facilitate the identification of high-risk patients who may need additional in-person support.

THE SMART PILL BOX

With the use of a low-cost medication container, a battery powered chip and a mobile data connection, the smart pill box automatically logs patient medication intake each time the patient opens the box to take medication by sending a signal. An alarm can remind the patient to take medication or when it is time to visit the healthcare facility.

FEATURES:

• Battery that lasts up to 6 months before it requires a recharge
• Global mobile data subscription for 36 months
• Various container sizes available to store and organize up to a month’s supply of medication
• LED and speaker to enable visual/audible dose reminders
• Printed instructions can be added

The plastic container can be cleaned or replaced for each patient, but the chip inside, which is the expensive component, can be transferred to a new container — saving costs.

The use of the smart pill box has been demonstrated in a wide variety of countries and settings, with countries under the ASCENT project demonstrating the largest programmatic implementation for thousands of people on TB treatment.

www.tbdigitaladherence.org
## SMART PILL BOX INVESTMENT

<table>
<thead>
<tr>
<th>Pill Boxes</th>
<th>Approx. Patients Supported</th>
<th>Adherence Platform Setup &amp; Monthly Hosting Costs</th>
<th>Supporting Infrastructure (Healthcare Facility Tablets &amp; Data)</th>
<th>Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,000</td>
<td>6,000 patients</td>
<td>✔️</td>
<td>✔️</td>
<td>USD 196,340</td>
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<tr>
<td>5,000</td>
<td>15,000 patients</td>
<td>✔️</td>
<td>✔️</td>
<td>USD 390,850</td>
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<tr>
<td>10,000</td>
<td>30,000 patients</td>
<td>✔️</td>
<td>✔️</td>
<td>USD 706,696</td>
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</tbody>
</table>

* We assume a reuse rate of the pill box module on average 3 times over 36 months. The per patient cost for implementation therefore decreases with each reuse.

## GUIDANCE FOR DAT INTRODUCTION & SCALE-UP

Do you plan to introduce or scale up DATs in your country's TB treatment approach? The smart pill box can be rolled out in the TB treatment with a short lead time for minor adjustments to the adherence platform and after 1 week of training healthcare providers on incorporating the tool into their workflow.

For help on procuring DATs and incorporating them into your TB treatment approach, send an email to the Global DAT Task Force Coordinator: inez.dekruijf-carter@kncvtbc.org
GLOBAL FUND C19RM INFORMATION NOTE
The Global Fund C19RM Information Note makes provision for the inclusion of DATs under Pillar 9: Mitigation for TB programs as DATs can support and improve care management in facilities.

THE GLOBAL FUND STRATEGY FOR 2023-2028
The recently published Global Fund Strategy for 2023-2028, highlights a “focus on finding and treating all people with DS-TB and DR-TB through equitable, people-centered approaches”, which in part can be achieved through the “support [of] all people with TB to access appropriate quality TB treatment and to successfully complete their medications through the […] adoption and scale-up of latest digital adherence technologies.”

GLOBAL FUND TB INFORMATION NOTE 2022
In their Information Note for Tuberculosis (July 2022), the Global Fund states that “digital adherence technologies […] can significantly de-stress the pressure on health care facilities, while meeting the service user needs and preference”. Therefore, DATs are highlighted as a prioritized intervention for Global Fund investments, under treatment and care, for the 2023-2025 allocation period.

WHO CONSOLIDATED GUIDELINES ON TUBERCULOSIS
The WHO states in their Consolidated Guidelines on Tuberculosis (2022) that: “treatment support alone is not likely to be sufficient to ensure good TB treatment outcomes, [and] additional interventions for treatment adherence need to be provided.” And that “the evidence […] showed that, when patients received treatment adherence interventions (e.g., different combinations of patient education, staff education, material support, psychological support, tracers and use of medication monitor) in conjunction with treatment support or SAT (self-administered treatment), the treatment outcomes were significantly improved compared to treatment support with observation or SAT alone”.

WHO OPERATIONAL HANDBOOK ON TUBERCULOSIS
The WHO states in their Operational Handbook on Tuberculosis (2022), that “SMS and EMM – which can operate without mobile broadband Internet coverage – are currently the most accessible, affordable and easily expandable treatment support approaches in resource-limited settings.”