

EMPOWERING TB AFFECTED PEOPLE THROUGH DIGITAL ADHERENCE TECHNOLOGY








Planning and implementation of DATs: Available tools and resources

Digital Adherence Technologies (DATs) such as medication sleeves/labels, smart pill box or video-supported treatment, can help to support people affected by TB with their treatment in a modern and effective way. These technologies are able to deliver reminders and may help empower TB affected individuals and their families to take their daily medication at a time and place that suits them best. They also generate a digital record of medication intake. When this information is linked to an online digital adherence platform it can help healthcare providers and social support services to focus efforts on individuals requiring extra support to complete their treatment.

This document was developed by the [Global DAT Task Force](#) to provide visibility to various planning and implementation resources and tools which country programs and implementing partners can utilize to plan for adoption and scale-up of DATs.

Purchasing DATs, setting up necessary infrastructure, and preparing for implementation can be accomplished through five steps

- 01** Assess country preparedness to adopt DATs 
- 02** Design DAT intervention 
- 03** Budgeting for DATs and supportive infrastructure 
- 04** Purchasing DATs and related services/infrastructure 
- 05** Training on DATs and integrating into health system 

01

Assess country preparedness to adopt DATs



The implementation approach for DATs is largely dependent on the level of country experience with DATs or other digital health products.

For countries without any prior experience with implementing DAT's, it is important to assess the factors at right. For instance, if a country has implemented digital health projects previously, there may already be existing infrastructure available for DATs. Similarly, it is critical to understand the extent to which the target population has access to specific technologies such as smart- or feature phones, mobile data, or Wi-Fi. This also accounts for access to infrastructure such as computers or tablets at the health facility for providers to view the online adherence platform.

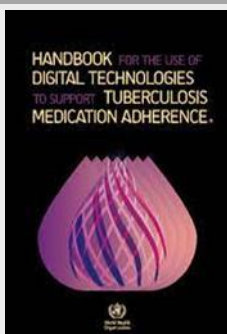
Assess country preparedness for DATs

- Existing DAT project(s)
- Target population for DAT use
- Available infrastructure (e.g. telecom and hosting providers, services, and mobile) phone network coverage
- Hosting and data regulations
- Technology access

This step will establish the technical groundwork for DATs to function effectively in subsequent phases of implementation.

For countries with DAT experience and infrastructure in place, DAT interventions can be scaled-up at an accelerated pace.

Available tools / resources



WHO Handbook for the use of digital technologies to support TB medication adherence (2019)

Chapters 1 and 2: Assessing the digital health landscape and selecting the DATs include high-level considerations that will help to assess the country preparedness to adopt DATs.

Available: [English](#), [French](#), and [Russian](#)

02

Design DAT intervention



An effective intervention goes beyond simply providing the DAT products to persons affected by TB. In fact, without a platform for providers to view adherence data, most DATs themselves are not particularly useful.

The DAT products and adherence platform must be paired with support follow-up actions for persons when they don't engage with their DAT and/or miss doses.

When designing such an intervention and choosing the combination of products and platform for a particular context, it's critical to collaborate with relevant in-country stakeholders. This will enable to plan for a smooth transition from the current standard of care.



1. Products: Digital Adherence Technologies
Enable (daily) interaction to log treatment adherence



2. Platform
Adherence data recorded, analyzed, and accessible on online platform



3. Program / Providers
Targeted follow up actions and support by providers, based on adherence

Available tools / resources



Workshop package "DAT intervention design"

This workshop package helps to facilitate an in-country workshop to design the DAT intervention, including targeted support actions.

[Request workshop package](#)



DATs and adherence platform demo package

The demo package includes examples of the DATs (medication labels/sleeves, smart pill box and video-supported treatment) and access to a demo instance of an adherence platform.

[Request demo package](#)

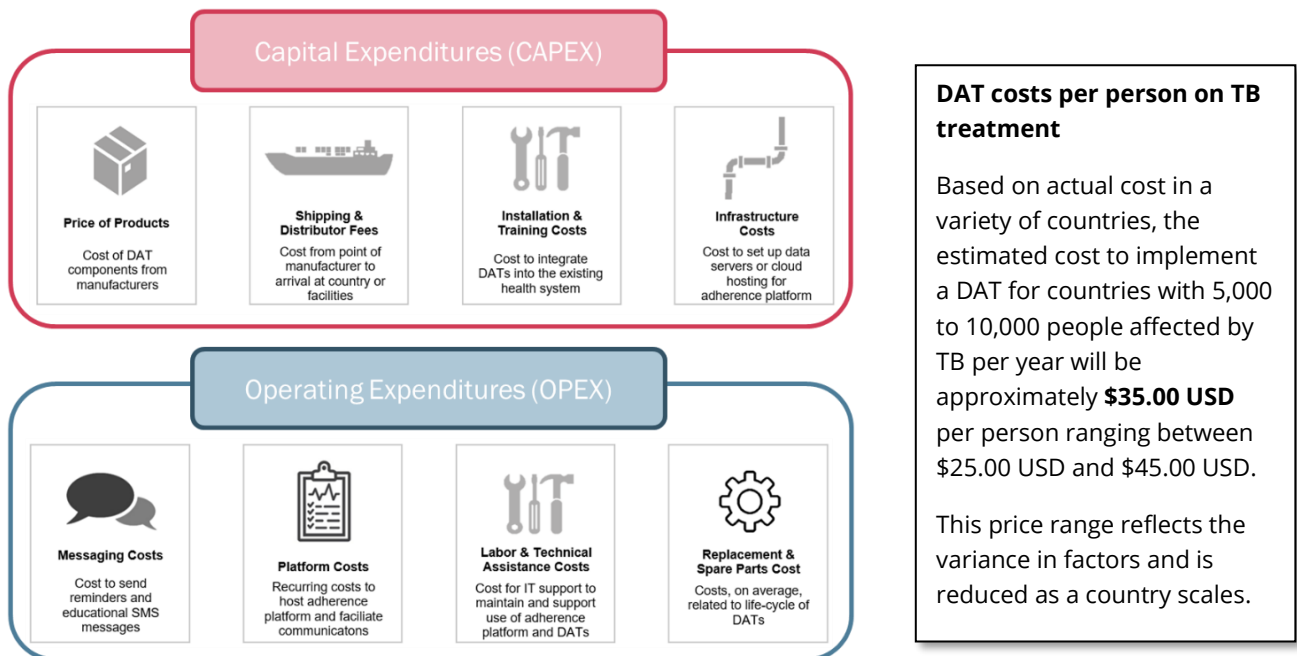
03

Budgeting for DATs and supportive infrastructure



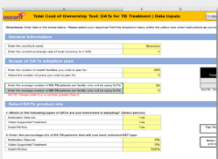
Several factors influence the per person cost of implementing and scaling DATs. These include Capital Expenditures (CAPEX), the cost of purchasing and setting up DATs, as well as Operating Expenditures (OPEX), the ongoing cost to operate DATs.

To fully contextualize CAPEX, costs should be considered on a per person on TB treatment basis, as some DATs can be used multiple times. While it can be easy to overlook OPEX, appropriately budgeting for operating expenditures is critical for an effective DAT deployment.



To simplify the budgeting process across CAPEX and OPEX, the ASCENT project has developed an easy-to-use tool to estimate the total cost of ownership for DAT deployments. This tool can be customized to specific country contexts and various combinations of DAT products.

Available tools / resources



Total Cost of Ownership (TCO) Tool

The DAT TCO Tool can be used to generate country and setting-specific cost estimates.

[ASCENT Total Cost of Ownership Tool](#)

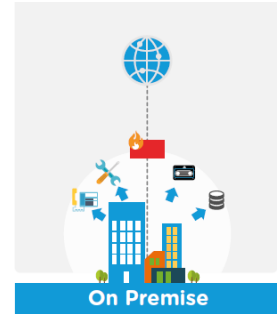
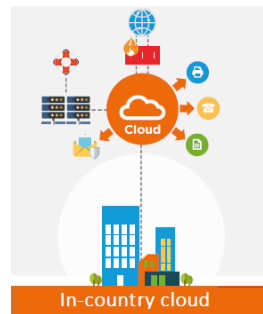
04

Purchasing DATs and related services/infrastructure



Adherence platform

Deployment of an online adherence platform can be done through global cloud hosting (e.g. Microsoft Azure, Amazon cloud services or Google), in-country cloud, or on-premises hosting.



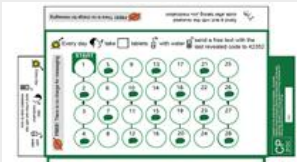



There are benefits and challenges to each option. Deciding on the most appropriate option should be based on scale, country data regulations, budget considerations, and functionality needs. As part of the preparedness assessment for DAT adoption (Step 1), hosting and data regulations should be evaluated up front to better understand the available options.

Digital Adherence Technologies and related Infrastructure

When purchasing DATs, it is important to account for technological requirements. If the target population does not have access to required technology/infrastructure, another DAT option may be preferable, or budgets should account for e.g., provision of feature/smart phones and mobile data or WiFi. Different avenues exist to purchase DAT products and supportive infrastructure. Implementers should be clear on these steps before deciding on a DAT option(s).

	Phone required?	Purchasing steps
Medication Sleeves / Labels 	 Feature phone	 Production of sleeves/labels In-country interaction infrastructure
Smart Pill Boxes 	None	 Order smart pill box from GDF
Video Supported Treatment 	 Smartphone and mobile data	

Available tools / resources

	<p>Templates for production of medication labels/sleeves</p>
<p>Everwell Health Technologies and the ASCENT project have developed templates for medication labels and sleeves that can be downloaded, customized and printed locally for the medication sleeve/label DAT.</p> <p>Request templates for medication labels or sleeves</p>	<p>Everwell Health Technologies and the ASCENT project have developed templates for medication labels and sleeves that can be downloaded, customized and printed locally for the medication sleeve/label DAT.</p> <p>Request templates for medication labels or sleeves</p>
	<p>Technical document to order smart pill box through the Global Drug Facility (GDF)</p>
<p>GDF offers a smart pill box package that includes the DAT and 3 years of prepaid data that can be used globally. The package can ordered easily through the GDF catalogue.</p> <p>Global Drug Facility Website</p>	<p>GDF offers a smart pill box package that includes the DAT and 3 years of prepaid data that can be used globally. The package can ordered easily through the GDF catalogue.</p> <p>Global Drug Facility Website</p>
	<p>Request for Proposals (RFP) to set up and manage in-country (cloud) hosting of adherence platform</p>
<p>This RFP package outlines the technical and operational requirements for in-country hosting of a digital adherence platform (here: Everwell Hub) and can be used to solicit bids from potential vendors.</p> <p>Request RFP package</p>	<p>This RFP package outlines the technical and operational requirements for in-country hosting of a digital adherence platform (here: Everwell Hub) and can be used to solicit bids from potential vendors.</p> <p>Request RFP package</p>
	<p>Request for proposals (RFP) to set up and manage in-country interaction/messaging infrastructure</p>
<p>This RFP package outlines the technical and operational requirements to implement and maintain the technical communication infrastructure to facilitate incoming and outgoing interactions with an adherence platform and can be used to solicit bids from potential vendors.</p> <p>Request RFP package</p>	<p>This RFP package outlines the technical and operational requirements to implement and maintain the technical communication infrastructure to facilitate incoming and outgoing interactions with an adherence platform and can be used to solicit bids from potential vendors.</p> <p>Request RFP package</p>

05

Training on DATs and integrating into health system



As with any new health technology, DATs must be integrated into the existing health system and provision of care to maximize impact.

Staff need to be trained on both the DATs and the platform.

Materials are disseminated to sensitize a wide range of groups to DATs, and a support mechanism is developed to help answer questions from providers.



1. Staff training on DATs and platform

To build capacity of (health) staff on DATs to strengthen patient support



2. Materials for patients, staff and program

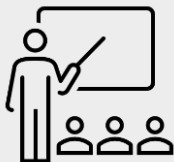
Leaflets, booklets, posters, step by step guides, instructions, DAT illustrations



3. Staff support mechanism

To provide support and answer questions from staff

Available tools / resources



Workshop “DATs, platform and intervention for staff”

This workshop package helps to facilitate a one- or two-day training for providers and other staff at facilities that introduce DATs. It includes presentations, exercises and other training materials that can be customized.

[Request workshop package](#)



Support materials for persons using DATs, staff and program

The ASCENT project developed various materials such as:

- Instructional booklets for medication label/sleeve, smart pill box and video supported treatment
- Guidance documents for staff and program to manage DATs
- Dosing instruction stickers and placemats
- Frequently Asked Questions (FAQ) knowledgebase to answer questions from staff and persons using DATs

[Request support materials](#)

Contact

All tools and resources mentioned in this document are publicly available and can be accessed upon request or through the Global DAT Task Force and ASCENT websites.

The Global DAT Task Force is here to help you

[Contact the DAT Task Force for questions, additional information or to request materials](#)



[Global DAT Task Force](#)

The Global DAT Task Force consists of a broad spectrum of country and global partners and stakeholders and can support needs related to DAT implementation.

[Digitaladherence.org](#)

The Unitaid funded ASCENT project aims to make digital adherence technologies available for all people affected by TB.

On the project website you can find resources related to planning for and scaling up DATs, such as the Implementation Toolkit, training materials, the TCO tool, RFP documents and others.