Assessment Tool for Digital Pandemic Preparedness (DPP): Procedure

Version 2: March 2021
Introduction and Overview

The **Digital Pandemic Preparedness (DPP) Assessment Tool** aims to provide a systematic methodology to **identify needs for digital tools** that integrate with the partner countries’ existing digital ecosystem, while modernizing their overall pandemic preparedness. It integrates and builds on data from the USAID Map and Match Process and the EDIT tool developed by the Kati collective.

The application of this tool should deliver **valuable insights** not only on gaps; rather, it should delineate partner countries’ needs and their ecosystems’ viability to adopt an additional function or tool.

This document is intended to serve the application of the tool as a **procedural guidance for tool implementation and interpretation**. It follows the structure of the DPP Assessment Tool Excel File and is structured along **3 Phases**:

I. Desk Research and DPP Assessment Tool Prefill
   (sheets 'Metadata', A0, A1, A2)
   - Stakeholder mapping
   - Contextual analysis
   - Prefill & check data from USAID M&M

II. DPP Assessment with Stakeholders
    (sheets A3, A4, E1,E2,E3,E4)
    - Identification of existing DPP functionalities
    - Qualitative assessment
    - EDIT tool

III. Results and Recommendations
     (sheet 'Results')
     - Consolidating results and findings
     - Formulating recommendations
I. Desk Review and DPP Assessment Tool Prefill

Sheet Metadata – Assessment Metadata

1. Enter interview details

2. Enter preliminary Stakeholder Mapping details

   - At this stage, the stakeholder map should consist of key individuals identified through the GIZ country network.
   - The Stakeholder Map should be updated throughout the assessment as additional stakeholders are identified.
   - A distinction is made between two groups of stakeholders:
     - **Primary stakeholders** are (key) informants to conduct the assessment (primary actors should thus be individual persons)
     - **Secondary stakeholders** are more generally relevant and should be considered for dissemination of results (clearly secondary actors can be identified on an institutional level only)
   - Make sure to identify an interdisciplinary variety of (primary) stakeholders, i.e. to ensure variable foci (on public health more generally, on (D)PP, IT/tools/software packages, etc.). Categorizing the stakeholders (e.g. by type, sector, level of intervention and technical involvement) should support you in this task. Likewise, it should guide your assessment of who qualifies as a primary vs. secondary stakeholder. A test run has shown that primary stakeholders are likely to have significant technical knowledge of a – or several – software packages’ functioning and their deployment in the digital health system.
   - Depending on size and complexity of the digital health system, saturation may be reached as a result of varying number of interviews; hence, a key criterion for saturation should be, if no additional software packages can be identified AND if no more conflicting information is retrieved.
   - The comment column can be used to qualify interview, relevance of actor (individually or institutionally), or any other comment relevant for follow-up.
I. Desk Review and DPP Assessment Tool Prefill

Sheet A0 - Background Data

The table on the epidemiological situation provides a snapshot of the current situation; for future reference include the date of retrieval.

3. **Contextual Analysis**: Qualitatively assess the contextual situation in the country with regard to the overall digital readiness and digitalization of the public health system (or the prospects thereof). Additional information retrieved in line with the interviews and the specific qualitative assessments (per tool/functionality in A4 and in Results Sheet).

   - **Digital Readiness** (general): the table identifies a number of key aspects that should, however, not be considered exhaustive. Use the column on the right to include any further observations and comments to chart the country’s digital readiness. Global indices like the ITU ICT Development Index, the GSMA Mobile Connectivity Index, CISCO Digital Readiness Index or the WITSA Network Readiness Index among others can inform the assessment.

   - **Digital Health System** (general): see above; Global Digital Health Index

4. Identify relevant datasets in the various categories (column on the right) that are (publicly) available and that would contribute to/are required for/enable the deployment and efficient implementation of digital (additional) tools.

The background data serves the contextualization of the assessment and the outcomes should solidify the assessment results as a basis for decision-making.
I. Desk Review and DPP Assessment Tool Prefill

Sheet A2 – DPP Overview

8. Review table A2 noting the following:
   - Software Packages should be **auto filled for each matching DPP Category** (indicated with ‘1’). The auto fill function uses the data from Sheet A1. Check to ensure there are no errors.
   - Software Packages which were indicated as **not applicable to the assessment** (Sheet A1: column R - Applicable for Assessment?) should show as ‘NA’ in **YELLOW font** in the column header and should not indicate any matching DPP categories (software packages marked as ‘NA’ will also not be considered in calculations on the Results sheet).
   - DPP Categories in **RED font** indicate **no software packages matching this DPP category** from the USAID data (Sheet A1: column H - GIZ DPP Categories).

9. Note any DPP Category gaps (**RED font**) and **review Sheet A1 column H data manually** to ensure there are no **errors in spelling or terminology**.
   - Data listed should match the spelling and terminology used by the official GIZ DPP Categories as listed in Sheet A2.
   - Desk research should then be used at this stage to verify the accuracy of the data listed in column H.
   - Data sources can include the remaining USAID data as well as any other viable source. In some cases this will likely need to be reviewed later in the assessment with input from relevant stakeholders.

10. Following review and corrections, note any remaining DPP Category gaps (**RED font**) in Sheet A2. These provide a high-level overview of gaps in the country’s DPP approach and should serve as **talking points during initial meetings** with stakeholders for the DPP assessment.
I. Desk Review and DPP Assessment Tool Prefill

Sheet A1 – Articulation of Existing DPP Software Packages

5. Copy and paste (values) from associated USAID M&M data into columns C:N
   • Important to paste values (DO NOT simply click paste)
   • Check columns carefully to ensure they match.

6. Check data in column D ‘Software Name’ carefully to ensure the entries correspond to actual software packages.
   • Important to look for spelling mistakes and/or words not aligning exactly.
   • This will likely require input from relevant stakeholders in many cases to understand exactly what is being used & how

7. Enter data in columns O:R and Comments as required
   • Version Code: research version of deployed software package. These data were not explicitly stated in the M&M documentation, but may potentially be inferred from other columns. Otherwise this data can be gathered during the main assessment from the relevant stakeholders.
   • Maturity Score: research the maturity score of the software package from the Digital Square Global Good Maturity Model (v1.3). Not all software will have an associated score.
   • Global Scale: assess the global scale classification of the software package using the Global Goods Guidebook.
   • Applicability: filter relevant software packages for the assessment by selecting ‘Yes’ or ‘No’ after carefully reviewing the USAID data in the requisite columns. In addition to obvious disqualifiers (e.g. erroneous entries) this step should place particular emphasis on scale of deployments. For instance, in the case of a micro deployment with limited immediate scale-up potential, the applicability should be ‘No’. This entry will remove the software package from analysis in subsequent sheets and replace with ‘NA’.

EDIT Tool

The Early Stage Digital Health Investment Tool was developed by Kati Collective with funding from the Bill & Melinda Gates Foundation. (http://www.katicollective.com/). In the DPPA Context, EDIT serves to get a wider understanding where the country is on the spectrum of digital health readiness around the building blocks that need to be in place to enable the successful implementation of an digital health solution.

EDIT is divided into six **building blocks**, that all have indicators

- Human Capacity
- Data Capture and Use
- Standards and Interoperability
- Investments and Funding
- Governance and Policy
- Infrastructure

**Types of Indicators:**

- Informational Indicators: help identify the environment in which the digital health solution is deployed-
- Enabling indicators make it possible or easier for a country to deploy a digital health solution.
- Critical: Critical indicators are conditions that are necessary to be in place before a country can move forward with a digital health solution.

Those completing the assessment will review the criteria for each indicator and select the criteria that is most closely related to their country scenario.

The Potential Actions section is intended to identify specific action items that countries can implement to improve readiness for a digital health solution while the notes section is for the facilitator to note and document any probing questions or qualitative information that should be recorded during the facilitation of the assessment. Each indicator also notes what level of the health system the indicator is focused on.
II. DPP Assessment with Stakeholders

Sheet A3 – Identification of Existing Functionalities

11. Working with relevant stakeholders, each software package will now be analyzed in a deep dive – i.e. close review of the deployment by component functionalities for each DPP Category.

12. For each software package, **assess the deployment status by functionality**.
   - When a software package **exhibits a given functionality**, and is **currently deployed**, select “1”
   - When a software package **exhibits a given functionality**, but is **not currently deployed**, select “2”
   - When a software package does **not exhibit a given functionality**, leave the entry blank.

Sheet A4 – Qualitative Assessments of Existing DPP Functionalities

11. Based on the input for Sheet A3, gap functionalities are indicated in **RED font**.

12. **For each software package**, provide additional qualitative input where pertinent. For instance, if DHIS2 Tracker is deployed to communication with patients via phone call (functionality 3.6), but the connection to the phone network is often problematic and results in poor communications, this should be noted along with any other interesting and relevant observations/recommendations that could help solve the problem. The initial contextual assessment (sheet A0) should support this task (and feed additional general information into A0 if required).

   • **NOTE - Use the hyperlinks (‘X’) on top of each software package name in Sheet A3 to navigate quickly to the same software package in Sheet A4.**
III. DPP Assessment Results

Results

13. The overall purpose of the assessment is to **identify the need for digital tools which fit into the existing digital ecosystem** and can modernize partner countries’ overall pandemic preparedness. The Results sheet seeks to bring data and findings together towards this end – i.e. to provide a structure for reporting the findings of the assessment and making recommendations to decision makers.

14. **Table 1: Gaps by DPP Category** provides an aggregated output of Sheet A2. This table should be inserted into the report to demonstrate the existing DPP capacity, and gaps by DPP category at a high level. Table 1 provides a sum of matching software packages by DPP category, with the zero values indicating gaps. For the purposes of consistency, gaps are also indicated using **RED font** as with sheets A2, A3 and A4.

15. **Table 2: Gaps by DPP Functionality** provides an aggregated output of Sheet A3. This table should also be inserted into the report to provide an evidence base of the existing DPP capacity and gaps on the functionality level. As with Table 1, Table 2 also provides a sum of matching software packages, with the zero values indicating gaps. For the purposes of consistency, gaps are also indicated using **RED font** as with sheets A2, A3 and A4.

16. **Table 3: Overview of Key findings** should be used to consolidate findings from sheet A4, and produce subsequent recommendations.

   a. **Functionality Gap Identified:** List identified functionality gaps (copy/pasted from Table 2)

   b. **Functionality Viability Analysis:** For each gap functionality, assess the overall viability of implementing a hypothetical software package. The point is to assess **whether deploying any software with this functionality even makes sense given local conditions**. For instance, if there is no network of functioning health clinics to administer vaccines, then a vaccine immunization forecasting module will not be a viable investment. Try to consider as many preconditions as possible. Inputs to this analysis should include general findings resulting from the following sources:
      - General desk review
      - Stakeholder interviews on epidemiological situation, country health and digital readiness (sheet A0)
      - Stakeholder interviews on deployed software packages and associated challenges by DPP functionality (sheet A3)

   c. **Potential Use of Existing Software Packages:** Analyze the potential for extending existing software packages to cover the gap. Where potential exists, please list all resources required for this including additional licenses or hardware. An outlined case should be made including challenges, and details of existing software owners – including how realistic the potential for collaboration is.

   d. **Recommendations:** Provide summary recommendations on how GIZ should proceed with regard to addressing the gap. Please include a detailed rationale for this recommendation logically following from the preceding points.