Assessment Tool for Digital Pandemic Preparedness (DPP): Introduction for Stakeholders

January 2021
DPP Assessment Tool: Motivation

• COVID-19 pandemic has exposed serious gaps in the ability of many public health systems to manage an effective epidemic response.

• Partner countries often lack integrated digital solutions in public health administration.

• But it is challenging to assess what is actually needed?

• Imperative to take into consideration the country-specific context and partner priorities and needs.

• Therefore, a systematic approach is required: DPP Assessment Tool
DPP Assessment Tool: Objective

To provide a systematic assessment methodology for identifying the need for digital tools which fit into partner countries’ existing digital ecosystem and that can modernize overall pandemic preparedness.
DPP Assessment Tool: Building the Solution

1. Defining **Digital Pandemic Preparedness** (DPP) in terms of practical software requirements (i.e. what tools are needed?)

2. Drawing on epidemic response best practice and digital health standards to **define broad categories of functionality** for DPP-related software packages that constitute a **holistic DPP strategy**

3. Identifying **component functionalities** of software packages for each category (e.g. **Laboratory Systems** > Link patient and healthcare workers to the patient sample sent to the laboratory for testing)

4. Aligning with other, similar **international frameworks** (e.g. **USAID Map & Match** and WHO DHI)
# DPP Categories and Functionalities

## DPP CATEGORIES

1. SURVEILLANCE
2. LABORATORY SYSTEMS
3. CASE MANAGEMENT
4. CONTACT TRACING
5. PROXIMITY TRACING
6. COORDINATION & OPERATIONS
7. SUPPLY CHAIN & HEALTH FACILITY LOGISTICS
8. HEALTH FACILITY ADMINISTRATION
9. HEALTH WORKER TRAINING
10. RISK COMMUNICATION & COMMUNITY ENGAGEMENT
11. ONE HEALTH
12. INTEROPERABILITY
13. VACCINE DELIVERY
14. DATA ANALYTICS, VISUALIZATION & USE

## LABORATORY SYSTEMS

- **2.0**
  - **2.1** Link patient and healthcare workers to the patient sample sent to the laboratory for testing
  - **2.2** Guidance (to health workers) on the method to collect a sample
  - **2.3** Notifications when results are available (to patient, to healthcare facility for contact tracing etc.)
  - **2.4** Integration with case management application and surveillance tools (to confirm suspected cases are positive or not)
DPP Assessment Tool: Methodology

Developing a **procedural methodology** for the assessment. For instance:

- **What** data is going to be collected?
- **How** to collect?
- **Who** will provide?
- **What** are we going to do with it?
- **How** will it be processed in order to provide **actionable insights** to decision-makers?

Tool takes the form of a **multi-sheet Excel workbook**.
DPP Assessment Tool: Overview

- (mostly) **linear assessment process**: 5 Stages in 3 Phases
- **simplified handling**: cross-referencing, semi-automated data transfer and colour-coded gap identification
- **Integration of data** collected by USAID Map & Match
- Data collection (tentatively) over **3 weeks by a national consultant** in each partner country
- **Outcome**: report to inform decisions on budgetary allocations and future interventions

### I. Desk Review

1. Background & Overview Data
   - stakeholder mapping
   - country context:
     - digital readiness
     - digital health

2. DPP Tools Data Collection
   - input USAID data
   - data quality assurance
   - review DPP category gaps

### II. Assessment & Stakeholder Interviews

3. DPP Tools Assessment
   - tool evaluation by DPP functionality:
     a. categorical
     b. qualitative
   - identification of DPP functionality gaps

4. DPP Gap Analysis
   - evaluate functionality gaps:
     a. contextual viability (cf. Phase I)
     b. potential existing resources
   - consolidate findings

### III. Results & Recommendations

5. Report
   - reporting results
   - formulation of **actionable recommendations**
1. Desk Review: Background & Overview Data

**Stakeholder Mapping:**

> Identification & Categorization  
  tabular mapping of known/suggested stakeholders (e.g. by GIZ Programme or in process of assessment)  
  Categorization to ensure interdisciplinary scope (e.g. IT specialists, public health officials, epidemiologists, decision-makers, etc.)

> Priorization  
  Key informant SH (primary)  
  SH for dissemination (secondary)  
  (based on GIZ Capacity Works Tool)

**Charting Country Context:**

> Digital Readiness  
  e.g. internet access(ability) & infrastructure, digital skill, tech adoption, legal & regulatory aspects, etc.

> Health System Digitalization  
  e.g. national strategy, national HMIS, eHealth architecture/HIE, standardization, etc.

> Identification of Datasets

[Image: Icons made by Freepik from www.flaticon.com]
2. Desk Review: DPP Tools Data Collection

**USAID M&M Data:**
USAID’s Map & Match collected data on all kinds of tools deployed in the public health sector on a use case-based approach.

> **Pre-filling**
Pre-filling the tool with USAID Map & Match data generates a solid foundation for the stakeholder-based assessment. The assessment tool generates an overview of digital tools linked to GIZ DPP categories.

> **Data Quality Assurance**
Ensuring the tool’s efficacy, the data should be carefully cleaned and the listed tools probed for relevance.

**DPP Tools Overview**

> **GIZ DPP Category Gaps**
The generated overview highlights and color-codes DPP category gaps (i.e. those not covered by any identified tool, yet) and filters irrelevant entries. The result serves as an entry point for stakeholder interviews.
3. DPP Tools Assessment

Stakeholder Interviews:

> Conducting Interviews
depth dive data collection on each identified tool

> Evaluation by DPP Functionality
filling assessment tool with findings:
categorical evaluation matched with a qualitative evaluation per functionality gap

4. Gap Analysis

Filling the Gaps?

> Gap Identification & Validation
drawing on the categorical and qualitative evaluation, the tool aggregates data on functionality gaps in a results tab. Ensuing questions:
• What existing resources could be leveraged to fill the gap?
• Is it viable to deploy additional resources to address the gap?

> Linking to Country Context Analysis
cf. Step 1
5. Reporting

**Reporting Results & Recommendations**
- manually producing report on findings and formulating **actionable recommendations**
- the tool automatically aggregates data and feeds it into ready-made presentable visualizations

Report supports and informs **decision-making** on budgetary allocations and **future interventions** for DPP Partner Country

![Software Packages by DPP Category (%)](image)

Source: GIZ DPPA Tool Results Tab
## DPP Assessment Tool: Assessment Plan

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<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
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### 1 Preliminary Analysis

1.1 Online kickoff meeting with contractor, GIZ SP/Health, country GIZ health representatives and experts to discuss scope of work, country context and identify additional stakeholders for input relevant to the assessment

1.2 Mapping of relevant stakeholders

1.3 Online meetings with public health authority officials (Directors - Primary Health Care and Disease surveillance) to get buy-in for assessment, workshop scheduling etc.

1.4 Online meetings with additional relevant stakeholders as required, workshop scheduling etc.

1.5 Desk review of existing country epidemic response readiness, COVID-19 response status, digital development status etc

### 2 In-Country Activities

2.1 Meeting with GIZ health representatives and experts in partner country to explain assessment, discuss implementation, and identify additional stakeholders for input relevant to the assessment

2.2 Completion of stakeholder mapping

2.3 Meet with public health authority officials for introductions to technical team

2.4 Follow-up meeting with technical team for preliminary understanding of tools and functionalities which are already in-use

2.5 Meet with identified stakeholders

2.6 Workshop with public health authority technical managers and IT personnel, and other stakeholders to map existing digital health environment and assess which additional tools would add value (i.e. which tools and functionalities are already deployed as per assessment framework? Which functionalities/needs are not being met? Which solutions could apply given contextual viability? Analyse tools for contextual viability, i.e. in relation to epidemic progression, digital readiness and the health system capacities)

2.7 Mission closure meetings with GIZ, stakeholders etc

### 3 Assessment Report

3.1 Follow-up interviews and further desk review (as required)

3.2 Development of strategic recommendations as a baseline for strategic action plans

3.3 Development of report

3.4 Draft report submission to GIZ

3.5 Finalisation of report