STAGED DEVELOPMENT TOOL (SDT) FOR NATIONAL PUBLIC HEALTH INSTITUTES

Revised February 2021
Topics

• Maturity models and Discussion Guides
• SDT workshops
• SDT steps
Maturity Models

• The conceptual framework of the SDT is the maturity model
• A maturity model describes stages of development: Basic, Developing, Advanced, and Leading Edge
• The SDT helps NPHIs apply maturity models to topics or areas that are a priority for the NPHI
Discussion Guides (DGs)

- 30 DGs have been designed specifically for NPHIs
  - 11 cover internal-facing topics, such as leadership and management and internal communication
  - 19 cover external-facing topics, such as surveillance and multi-sectoral collaborations

- All 30 DGs are available in English, French, Spanish, and Portuguese at ianphi.org/tools-resources/sdt.html

- The DGs describe what an NPHI might "look like" at the different maturity stages:
  - Basic
  - Developing
  - Advanced
  - Leading Edge
# Discussion Guide Example

## Strategic Direction

**Surveillance**
- **Basic:** The NPHI conducts surveillance based on WHO guidance or donor interest, but it does not analyze or use the collected data.
- **Developing:** The NPHI attempts to use data from its surveillance to inform policies and programs. However, there is often a mismatch between what is needed and what is collected.
- **Advanced:** The NPHI’s surveillance is designed to provide data to guide policies and programs. In designing systems, all aspects of surveillance are considered, from data collection through analysis and use of the data.
- **Leading Edge:** The NPHI uses multiple approaches, including engaging decision-makers, to ensure surveillance systems are maximally useful. Systems are regularly evaluated, and are modified or ended if they are not useful.

**Systems**
- **Strategic:** The NPHI has some surveillance SOPs and guidelines, but these are hard to use (e.g., incomplete or poorly written), and are not widely distributed. Review of surveillance systems is ad hoc, if it occurs.
- **Advancing:** The SOPs for surveillance are sometimes outdated. Reporting entities sometimes do not have them. Most surveillance systems have been reviewed, but reviews are not comprehensive and are rarely acted on.
- **Advanced:** All reporting entities receive SOPs, and these are generally followed. Surveillance systems are regularly reviewed using standard indicators (e.g., timeliness, completeness). The NPHI often follows up on evaluation results, resulting in increasingly useful and efficient systems.
- **Leading Edge:** The NPHI’s surveillance SOPs are models for other organizations. The NPHI routinely reviews systems for quality and relevance, including whether the data are being used. Evaluations usually lead to improvements in the system.

**Resources**
- **Basic:** The NPHI has few resources to conduct surveillance and limited capacity to analyze and use surveillance data.
- **Developing:** The NPHI has some resources to help improve data collection by reporting entities, but these are not adequate. NPHI staff can conduct basic data analyses, but lack skills and software for more sophisticated work. They do not have skills to integrate the data with other information to make quality recommendations.
- **Advanced:** The NPHI has resources to provide substantial assistance to reporting entities to improve data collection. NPHI staff have the skills and resources to conduct and analyze data, including sophisticated analyses, and to use data to make recommendations.
- **Leading Edge:** The NPHI invests substantially in all aspects of its surveillance systems, from data collection through use of data. It consistently updates staff skills, infrastructure, and technology to meet current and expected future demands.

**Quality**
- **Basic:** Collected data are often of poor quality and are incomplete. Much of the data is not analyzed, and those analyses that are done are very basic, incomplete, and contain errors. Lack of computers and software also limits data collection and analysis.
- **Developing:** The quality of collected data is variable. Some data analysis occurs in a timely manner, but much of the data are not analyzed. Analyses tend to be very simple, for example, reporting numbers of cases by month, but not examining time trends.
- **Advanced:** The NPHI’s surveillance data collection and analysis is of generally high quality. Analyses often involve advanced methods, and analyses and reports are completed in a timely manner.
- **Leading Edge:** The NPHI uses a range of tools for collecting, analyzing, and visualizing results to maximize data quality and usefulness. Data collection and analysis are outstanding, even in the most complex endeavors. The NPHI regularly develops and tests innovative approaches to improving the quality of its surveillance.

**Engagement**
- **Basic:** Decision-makers and other stakeholders are not involved in defining questions for data collection and analysis. The NPHI shares its findings with stakeholders that submit requests.
- **Developing:** The NPHI sometimes involves decision-makers and other stakeholders when prioritizing data collection and analysis, usually at the stakeholder’s request. Some findings are widely shared.
- **Advanced:** Decision-makers and other stakeholders routinely provide input to the NPHI about priorities, and the NPHI ensures that they have access to results. It shares its findings through its website and other venues.
- **Leading Edge:** The NPHI actively seeks input from a range of stakeholders to inform its data collection and analysis efforts, and also proactively shares results. The NPHI maintains engagement as projects proceed, increasing the likelihood that results will be used. Impactful findings are disseminated using a variety of approaches.

**Impact**
- **Basic:** The NPHI’s surveillance data are not often used in-country for decision-making. The NPHI almost never identifies acute issues from its surveillance.
- **Developing:** The NPHI can provide few examples where surveillance data have informed policies or programs or have been used to identify acute issues.
- **Advanced:** Decision-makers often rely on the NPHI’s surveillance data for informing programs and policies. The NPHI can provide several examples where problems were identified earlier because of surveillance.
- **Leading Edge:** The NPHI’s surveillance has a major impact on the policies and programs of the MOH and many other organizations. Some of its findings have global impact. The NPHI regularly identifies new or emerging public health issues from surveillance data.
Discussion Guides: Domains

There are 6 SDT Domains – each is a row in the DG. They are:

1. **Strategic Direction**: Are priorities clear and strategic?
2. **Systems**: Does the NPHI have the necessary tools, processes, etc. to accomplish its work?
3. **Resources**: Are human and material resources adequate?
4. **Quality**: Is quality measured and are standards met?
5. **Engagement**: Are the key stakeholders engaged with the NPHI and helping it achieve its goals?
6. **Impact**: For internal-facing DGs: Is the NPHI operating effectively? For external-facing DGs: Is the NPHI contributing to better health?
SDT Workshops

• SDT workshops can be either in-person (if circumstances allow) or virtual
  - In-person workshops: typically 3 days and 5-8 DGs
  - Virtual sessions: typically up to 5 hours per session, including breaks, with number of DGs depending on a variety of factors

• Whether in-person or virtual, it is best to have an SDT-trained facilitator and recorder manage the process and record key information on the SDT forms
Preparing for a Workshop

• In planning an SDT workshop, careful thought is required to decide on the best DGs to use and select the right participants

• No special preparation or document development is needed on the part of participants
  ▪ The SDT relies on the knowledge and experiences of participants and their combined wisdom

• The roles of the facilitator and recorder are to:
  ▪ Guide the participants to thoroughly assess the situation and underlying issues before coming up with "solutions"
  ▪ Capture and organize input
The SDT Process Involves 3 Steps

1. ASSESS
2. PRIORITIZE
3. PLAN

- During assessment, the DGs are used to prompt discussion
  - A good assessment is critical for a good plan
  - The facilitator uses the DGs to help participants "dig deep"
- Issues for follow-up are then prioritized
- The final step is to identify specific next steps for the priority efforts
**Step 1: Assessment**

- Participants use the DG to assess the NPHI's overall current stage and the stage it would like to be in some time period, e.g., a year.
- Participants next discuss Domain-by-Domain
  - The DGs help participants identify specific gaps and ways to move forward.
- The discussion is recorded on the Assessment Form.

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![Assessment Form](image-url)

<table>
<thead>
<tr>
<th>Domain</th>
<th>Actual Score</th>
<th>Examples/Reasons</th>
<th>Desired Score</th>
<th>Gaps/Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Direction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Systems</td>
<td></td>
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<tr>
<td>Resources</td>
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<tr>
<td>Quality</td>
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<tr>
<td>Engagement</td>
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<tr>
<td>Impact</td>
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</tbody>
</table>

Notes:
# Assessment Form: Example

**Assessment Form**

**Date:** January 10, 2021  
**Discussion Guide:** Surveillance  
**Current Stage:** Developing  
**Desired Stage:** Advanced

<table>
<thead>
<tr>
<th>Domain</th>
<th>Actual Score</th>
<th>Examples/Reasons</th>
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</tr>
</thead>
</table>
| Strategic Direction | 4            | Surveillance mostly focuses on what donors want. We don’t focus on the issues that are likely to be most important, like gaining access to lab data.  
We don’t know what the Minister would want to know about - Are we focusing on the most important things?  
We do provide updates to the Minister on request, and we are good at collecting data during serious outbreaks | 7             | Lack of a clear plan related to most important issues for country  
- Need a clear plan for what data we should collect, what questions we should ask of the data, how we should analyze it, and how we should share the findings  
Lack of engagement with Ministry, not proactive |
| Systems         | 4            | SOPs for case-based surveillance and generally ok  
- May not be adequately disseminated  
- We don’t provide oversight  
Lab is under different leadership, and they don’t analyze their data regularly. Not clear if the lab has SOPs and case definitions to use for surveillance  
Systems for reporting acute events work well  
Systems for disseminating results of routine surveillance are lacking | 5             | Major gap is with lab-based data  
- They lack skills, we lack access  
Priority to establish systems to disseminate data  
- Web  
- PH bulletins |
| Resources       | 4            | Need resources to train laboratorians—can they use Epi-info?  
Need resources to develop reports, put on website—need a communications person  
Probably should get resources to do quality assessment of district data and provide oversight | 6             | We have resources, but it is not clear we are using them well  
Gets back to strategic direction — need better planning to ensure resource use is optimal  
May need resources to train laboratorians if they don’t have funds to support this  
If we decide to invest in evaluating/improving district performance, this may need resources |
| Quality         | 4            | Quality of district data and lab data is unclear  
Quality of NFH reports on labs is not good—ie, reports don’t exist | 5             | We think routine surveillance is good, but we aren’t sure  
We don’t know much about lab quality of data |
| Engagement      | 3            | Big opportunities we don’t take advantage of  
- Easy win would be the lab  
- IP, others have data we could use  
Need more engagement with local governments | 5             | Initial focus should be on the lab and Ministry, with local governments next  
If we are more proactive with summarizing info, publishing, web, etc., will be able to better engage with partners |
| Impact          | 3            | Could improve this by publishing, policy briefs | 6             | Impact currently is minimal because we don’t share information of help others analyze their information  
- Ministry is unaware of our findings  
- Lose opportunities to impact public’s health, e.g., with COVID |
The Next Steps Form

• The Next Steps Form is used for SDT Steps 2 and 3
• It includes:
  - Gaps and issues from Assessment
  - Description – details about the gaps that will help define next steps
  - Next Steps – specific actions to be taken after the workshop
Moving to Prioritization and Planning

- Participants take a break after Assessment, while the facilitator and recorder organize the Assessment Form information onto the Next Steps Form
  - Ideas about issues that cut across more than one Domain are consolidated

### Next Steps Form

<table>
<thead>
<tr>
<th>Gaps and Issues</th>
<th>Description</th>
<th>Next Steps</th>
<th>Who</th>
<th>When</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine surveillance not integrated with lab surveillance</td>
<td>Lab staff don’t know much epi – don’t know why data are important</td>
<td>Maybe train lab staff about use of data for ph?</td>
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<tr>
<td></td>
<td>NPHI would need a formal data sharing agreement with the lab to access the data. Lab seems amenable to this</td>
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<tr>
<td></td>
<td>NPHI could analyze lab data for them.</td>
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<tr>
<td>Lab staff don’t have skills for analysis</td>
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<tr>
<td>Lab staff don’t understand why their data are important</td>
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<tr>
<td>NPHI is not engaging with districts</td>
<td>Quality of data unclear</td>
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<tr>
<td></td>
<td>Perhaps need to focus on ensuring they understand how to use the data as well</td>
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<td></td>
<td>Big undertaking to have a program to improve</td>
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</tbody>
</table>
Participants Review Next Steps Form

- The group discusses each item in the Gaps and Issues column and fills in details needed to make a good plan
  - Is more information needed to understand the gaps keeping the NPHI from the desired stages?
  - Will addressing the identified gaps have the desired effect; are there important issues missing?

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<td>Routine surveillance not integrated</td>
<td>NPHI epidemiologists could analyze lab data or teach lab people to use EpiInfo, teach lab staff why data are important Databases could probably be integrated. Lab database was reviewed by NPHI and it seems they could be used in a complementary way NPHI would need a formal data sharing agreement with the lab to access the data. Lab seems amenable to this</td>
<td>1. Set up meeting to discuss formalizing agreement with lab to share data and explore their training needs 2. Conduct seminar for lab re use of surveillance data</td>
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<tr>
<td>with lab surveillance</td>
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<tr>
<td>- Epi/lab are two separate databases,</td>
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<td>need formal agreement to share</td>
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<td>Lab staff don’t have skills for</td>
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<td>analysis</td>
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Step 2: Prioritize

• The group then reviews the Gaps and Issues column, issue by issue
• They identify priorities, and the recorder highlights them
• Once all the gaps and issues are discussed, the highlighted items are reviewed
  ▪ Did the priorities get captured? Is anything missing? Should anything come off?

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<tr>
<td>Routine surveillance not integrated with lab surveillance&lt;br&gt;- Epi/lab are two separate databases, need formal agreement to share&lt;br&gt;Lab staff don’t have skills for analysis&lt;br&gt;- Lab staff don’t understand why their data are important</td>
<td>NPHI epidemiologists could analyze lab data or teach lab people to use Epilinfo, teach lab staff why data are important&lt;br&gt;Databases could probably be integrated. Lab database was reviewed by NPHI and it seems they could be used in a complementary way&lt;br&gt;NPHI would need a formal data sharing agreement with the lab to access the data. Lab seems amenable to this</td>
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Step 3: Planning

- Next steps – including who is responsible and a timeline – are described for all priorities

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<td>1. Set up meeting to discuss formalizing agreement with lab to share data and explore their training needs 2. Conduct seminar for lab re use of surveillance data  - Keep to 1 hour</td>
<td>1. Ellen to contact lab to set up meeting 2. Ellen to follow-up with lab re interest, David to present ideas for seminar at next staff meeting</td>
<td>Jan 15  Jan 15</td>
</tr>
<tr>
<td>NPHI is not engaging with districts</td>
<td>Quality of data unclear  - Perhaps need to focus on ensuring they understand how to use the data as well  - We haven’t done a routine surveillance eval for a while</td>
<td>Conduct regular type assessment of routine surveillance (NNDS) 1. Establish plan for assessment, including resource needs 2. Implement plan 3. Final report</td>
<td>1. David 2. Team. Led by David and Katy</td>
<td>Jan 31  Feb 15  Apr 1</td>
</tr>
<tr>
<td>NPHI does not generate routine surveillance reports in a timely way</td>
<td>NPHI used to have a monthly public health bulletin, but it was never timely and it included little analysis. Way behind in compilation of data</td>
<td>First step is to identify what content we want to share and who our audiences are.</td>
<td>Ana to develop concept paper</td>
<td>Jan 31</td>
</tr>
</tbody>
</table>
Finally, Identify the Low-Hanging Fruit

• Low-hanging fruit are activities that can be done relatively easily and will have high impact

• First, the Next Steps are reviewed. Are any of these low-hanging fruit?

• Then, additional ideas can be generated
  ▪ These ideas may not be specific to the Discussion Guide used in the workshop, but are easy wins to consider pursuing
  ▪ Each low-hanging fruit should have a next steps plan: who is responsible, and what is the timeline
Before Ending, Review the Plans

• If the NPHI addresses the priorities, will it make the desired progress towards achieving the desired stage?

• Are additional resources needed? What is the plan for obtaining them?

• Are the next steps clear? Do all key staff understand their roles in carrying the plan forward?

• How will progress be monitored?
Good Luck to You As You Move Towards Your Preferred Future

- If you have any comments or questions about this material, please contact:
  - U.S. CDC’s NPHI Program: nphisdt@cdc.gov
  - IANPHI: info@ianphi.org