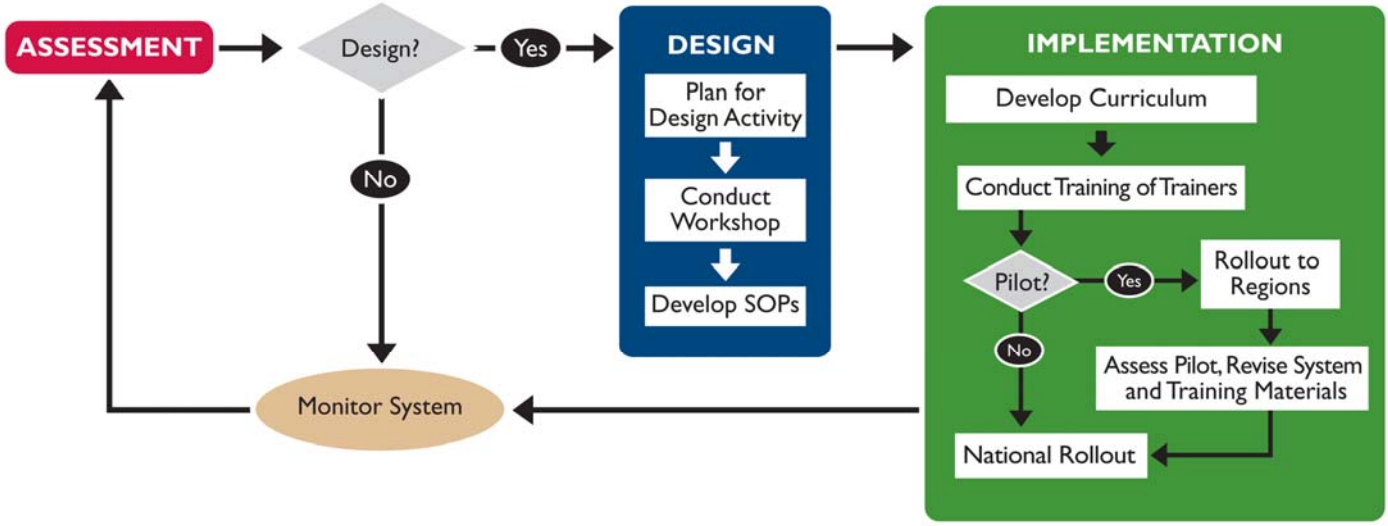
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Quick Reference: Logistics System Design and Implementation

A well-designed logistics system is fundamental to providing a continuous supply of high quality health commodities to customers wherever and whenever needed. As illustrated in the figure below, the process of designing and implementing a logistics system includes three key steps: assessment, design, and implementation.

Logistics System Design and Implementation Process



ASSESSMENT

Required Time: 1 month

The first step in designing a logistics system is to **assess** the existing system to identify its strengths and weaknesses and determine if it should be redesigned. In most cases, a lack of logistics procedures and tools and poor functionality are obvious; however, an assessment is still necessary to inform the design of the new system. In addition, because the design and implementation of a logistics system is time- and resource-intensive, an assessment that identifies the need for a logistics system can help secure the buy-in and resources necessary for full implementation. In preparation for the design activity, the results of the assessment must be analyzed and consolidated.

Required Resources:

- At least two team leaders able to manage assessment activities and an assessment team of at least six to eight members. The team's composition depends on the size of the country and the scope of the assessment.
- Depending on the assessment model chosen, additional resources (including printing, transportation, per diem, venues, etc.) required for: key informant interviews, central-level stakeholder workshop (see *Logistics System Assessment Tool*), and facility visits (see *Logistics Indicators Assessment Tool* and *Assessment Tool for Laboratory Supplies*).

DESIGN

A logistics system **design exercise** should include the development of a logistics management information system (LMIS) (e.g., tools and processes for managing information), an inventory control system (e.g., stock levels and procedures for resupply), and procedures for storage and distribution. It is recommended that the system design activity be done in a participatory workshop. A **standard operating procedures (SOP)** manual is developed based on the designed system. The SOP manual provides instructions about how to use the system and describes the roles and responsibilities of all participants in the system.

Required Time:
Design: 2 months *(includes prep, 1-week design workshop, and follow up)*
SOPs: 1-2 months

Required Resources:

- Staff time to develop SOP manual, and the cost of printing manuals
- At least two facilitators with previous system design/evaluation experience to facilitate workshop
- Workshop costs for one-week design workshop, including printing, venue, per diem, and transportation (see *Guide for Planning and Implementing a System Design Activity*)
- Staff time to follow up on any outstanding issues and to gain final stakeholder approval

IMPLEMENTATION

The **implementation** of a logistics system involves training all staff with logistics responsibilities on how to use the system. A **training curriculum** is developed based on the SOPs, and is used to train staff on how to use the SOPs to accomplish their logistics tasks. Assuming a cascade training approach, master trainers are trained on the use of this curriculum during a **training-of-trainers (TOT)** workshop. Following the TOT, these master trainers then facilitate trainings for staff throughout the country. Some programs choose to pilot their logistics system, meaning that they implement it only in a select number of facilities or particular regions before the national rollout. To properly evaluate the **pilot**, it is important to manage it for two to four reporting and ordering cycles. Although the pilot provides feedback that can be used to improve the system before rolling it out to every facility, piloting can prolong the implementation process by as much as 9–12 months, and will require additional resources.

Required Time:
Curriculum development: 2 months
TOT: 1-2 months
Pilot: 6 months
Rollout: 6-12 months

Required Resources:

- Staff time to develop training curriculum
- At least two TOT facilitators conversant with logistics, adult learning theories, and TOT approaches
- Workshop costs for one–two week TOT workshop
- Sufficient trainers to train health staff with logistics responsibilities (in the selected pilot regions, if piloting, and nationally), and the costs associated with conducting the training (including printing of LMIS forms)
- Cost of a post-pilot assessment (if piloting) to evaluate the system's performance and revise the system and training materials

Overall time frame

The entire process, from assessment to national implementation, may require from 12–24 months, depending on a variety of factors, including the complexity of the system design, size of the country, and number of facilities in the system. In addition, the type of system may also impact the timeline. Certain parts of the system design process have historically proved to be more time consuming than others. For example, gaining political buy-in, reaching consensus, and implementing major policy and/or structural changes–like removing a level from the system–can require significant time and follow-up. In the model of **continuous improvement**, in addition to ongoing monitoring, systems should be periodically assessed and revised (if necessary) to identify and address any challenges and to ensure that the highest performing logistics systems are available to get products to customers.