



## Statement of Work - Implementing a pilot of OpenLMIS in Nepal

Technical assistance to support the implementation of tailored OpenLMIS pilot in approximately 11 facilities with 50 unique users covering 10 tracer products of the essential medicines program in Nepal for a 6-month pilot project. PSM requires VillageReach's support based on its long-standing experience and know-how in OpenLMIS system design and support in Mozambique, Benin, Tanzania, and other countries.

### Context

The medical commodity supply chain in Nepal has historically been a success story; the Nepalese government is responsible for impressive gains towards achieving the Millennium Development Goals leading up to 2015. The government has a good understanding of the value of an efficient and effective supply chain, barcoded commodities are readily available from India, and internet and mobile infrastructure is fairly advanced for a developing country. However, with the closing of the USAID DELIVER PROJECT in Nepal and transfer of responsibility to the government, many challenges have arisen.

First, positions requiring logistical expertise that were under DELIVER have since been rotated out. The Nepali system of "leasing" a position for two years and drawing from a general management pool has decimated the trained personal responsible for creating a high functioning supply chain. This, combined with high levels of corruption (50-60% leakage from warehouse to health facility) and an expanded essential medicines list (from 40 to 107 commodities), has reversed many of the gains made under the DELIVER PROJECT. Nepali health facilities now experience stock out rates of 20-30%.

Furthermore, different reporting cadence and re-stocking processes (push vs. pull) have added significant complexity to the supply chain and allow for obfuscation of the high levels of corruption and distrust of data shared between different levels in the supply chain.

There is a relatively light technology footprint in the health space in Nepal. No national level Enterprise Resource Planning (ERP) exists, nor is there a Health Management Information System (HMIS). An implementation of DHIS2 is currently on hold due to issues implementing the Vedic calendar. Because of the local populace's relatively limited experience with technology, regular staff turnover, and a lucrative paper form business, there are significant barriers to entry for an electronic system adoption. To this end, any solution must be as simple as possible to learn and have significant overlap with the existing paper processes.



## Objectives

PSM asks VR to attain the following objectives:

Objective	Category	Description
Gather requirements	Requirements gathering	Gather in depth requirements from the Nepali context to guide software configuration and development
Configure OpenLMIS to support the Nepali context: <ul style="list-style-type: none"> <li>• Support both push &amp; pull processes at different levels of the supply chain</li> <li>• Configuration of 1 region / 10 districts / 11 facilities/ 50 users with varying reporting cadence by supply chain level</li> <li>• 10 tracer products out of a total of 107 total essential medicines products</li> <li>• Appropriate authorizations</li> <li>• Appropriate user configuration and permission set</li> </ul>	Software configuration	Configure OpenLMIS to the specific characteristics of the facilities for the pilot site
Develop additional functionality required for the Nepali context (high level): <ul style="list-style-type: none"> <li>• Vedic calendar</li> <li>• Perform local fill</li> <li>• Mobile / offline support at the facility level</li> <li>• Electronic receipt to the facility level</li> <li>• Specific reports</li> </ul>	Software development and deployment	Prioritize and develop additional functionality important to the Nepali context
Limited tier 1 support (issues requiring expert / developer support) for bugfixes and enhancement requests	Software support	Provide the necessary tier 1 support for an operating instance of OpenLMIS



## Overall Project Plan

Augment and configure OpenLMIS to prepare the system for a 6-month pilot in Nepal; provide tier 1 support for on-going operations throughout the duration of the project.

Area	Items
Requirements Gathering	<ul style="list-style-type: none"><li>Clearly document user requirements, clarify system implementation details, and advocate for end-user buy-in for the system</li></ul>
Develop Software	<ul style="list-style-type: none"><li>Augment the development team with external resources as needed given the scope of work</li><li>Develop software</li></ul>
OpenLMIS Configuration	<ul style="list-style-type: none"><li>Set-up the production pilot system so that it meets the needs identified in the requirements gathering process</li></ul>
Ongoing Operations	<ul style="list-style-type: none"><li>Provide tier 1 support for bugfixes</li><li>Provide feature enhancements as guided by PSM &amp; end users within the terms of the contract</li></ul>

## Deliverables

The deliverables for this Scope of Work are the following:

- Detailed requirements outlining use cases for the Nepali health commodity supply chain
- A functional LMIS (limited to essential medicines) configured to the Nepali context
- A functional LMIS (limited to essential medicines) including features that will:
  - Support both push & pull based workflows by supply chain level
  - Support for different reporting cadence by level
  - Support for the Vedic calendar
  - Support for local fulfillment
  - Mobile or offline support for requisitioning from the health facility level
  - Support electronic receipt to the facility level
  - Specific reports TBD

## Budget

The following budget estimates are based on very high level requirements and VillageReach's experiences piloting similarly sized projects in other contexts. They cover the human resources as well as travel costs for VillageReach and assume that the implementer, PSM, handles all other expenses (including but not limited to hardware, organizational, training) required for a successful deployment. The activity most susceptible to budget variance will be software development, which could be affected by:

- Discovery of more in-depth requirements



II. Allocation of in-house development vs. subcontracted development resources

Per guidance, these values should be seen as +/-100% pending more in-depth requirements

**Costs by Activities**

**Requirements Gathering**

**Total**

On-Site Requirements Gathering Travel Costs (4 wks. In Nepal)	\$9,196.00
Technology Manager - On-Site in Nepal to gather requirements	\$14,000.00
Technology Director - Remote Support	\$900.00

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<b>Total for Requirement Gathering Workstream</b>	<b>\$24,096.00</b>
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**Requirements Development**

**Total**

Technology Manager - Backlog creation & prioritization	\$7,000.00
Technology Director - Remote Support	\$900.00

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<b>Total for Requirements Development</b>	<b>\$7,900.00</b>
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**Software Development\***

**Total**

Senior Developer - Architecture and developer support	\$3,250.00
Developer - Writing code	\$47,250.00
Technical Project Manager - Resource scheduling and developer support	\$4,000.00
Technology Manager - Story refinement and developer support	\$3,500.00
Technology Director - Support as needed	\$900.00

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<b>Total for Software Development</b>	<b>\$58,900.00</b>
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**System Configuration**

**Total**

Developer - Technical troubleshooting	\$2,625.00
Technology Manager - Collection & configuration of input files	\$7,000.00
Technology Director - Support as needed	\$900.00

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<b>Total for System Configuration</b>	<b>\$10,525.00</b>
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**Technical Assistance for Deployment**

**Total**

On-Site Support Trip Costs (2 wks. In Nepal)	\$5,598.00
Senior Developer - Architecture and developer support	\$3,250.00
Developer - Providing TA and writing bugfixes	\$15,750.00
Technical Project Manager - Resource scheduling and developer support	\$800.00



Technology Manager - Story refinement and developer support	\$3,500.00
Technology Director - Support as needed	\$900.00
<b>Total Technical Assistance for Deployment</b>	<b>\$29,598.00</b>

<b>Total Engagement Cost</b>	<b>\$131,219.00</b>
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## Estimated Timeline

Task / Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Requirements Gathering		Primary Activity	Primary Activity	Primary Activity	Primary Activity																			
Requirements Development / Refinement			Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Primary Activity	Primary Activity	Support	Support	Support	Support	Support												
Software Development			Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Primary Activity	Primary Activity	Primary Activity	Primary Activity	Primary Activity	Primary Activity	Primary Activity	Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Primary Activity	Primary Activity	Primary Activity	Primary Activity			
System Configuration														Primary Activity	Primary Activity	Decreased LOE Activity	Decreased LOE Activity							
Technical Assistance for Deployment																Primary Activity	Primary Activity	Primary Activity	Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Decreased LOE Activity	Support	Support
Support & bugfixes																Support	Support	Support	Support	Support	Support	Support	Primary Activity	Primary Activity



Primary Activity



Decreased LOE Activity



Support