

CSEP 590B, Assignment 5, Due Wednesday, February 11, 6:30 pm

Visibility and Analytic Network: The Visibility and Analytics Network (VAN) is a concept for strengthening global health supply chains by enhancing the capacity of professionals who are trained in quantitative analysis of supply chain performance, and will provide services to all levels of the health system in planning, pro-active response and continuous improvement. To enable these professionals, a system for data collection and aggregation is needed to report supply chain information and generate alerts and deliver actionable insight. The central goals of the VAN are to ensure that

1. Sufficient quantities forecasted and ordered
2. Commodities ordered on time
3. Orders delivered in full (including dispatched in full)
4. Order delivered on time
5. Commodity arrives with sufficient lifetime before consumption
6. Commodity maintains potency/efficiency

In practical terms, individual countries will implement the VAN concept by training a group of supply chain professionals at the central and possibly regional levels who will provide management services to the health system for managing and improving health system supply chains. A health information system will collect relevant health supply chain data, with a suite of visualization and analysis tools to support the supply chain professionals. The commodities will include drugs, vaccines, family planning products, and other medical supplies.

Assignment: For this assignment describe an implementation of the health information system to support the VAN for one of your three countries. The design of your system should be realistic for the country that you choose, and if possible should be based on existing health information systems infrastructure. (Where you can't find information, document the assumptions you are making.) The VAN concept is being proposed to work across the health system (multiple commodities), with an initial focus on immunization. You can choose to implement it for multiple commodities, or just for immunization.

Your write up should address the following points:

1. Identify key performance indicators for each of the components of the VAN.
2. How will the system collect the necessary information for the analysts.
3. How will the system address the infrastructure challenges in your chosen countries.
4. How will the system be financially feasible to implement (or what type of resources would be necessary to implement and maintain the system.)
5. What are the main information gaps that you faced in the design.

Submit a design and an assessment of your design. Both the design and the assessment should be about two pages each. Submit all materials by Catalyst by 6:30 pm, Wednesday, February 11. Submit via the dropbox which will be accessible through your Catalyst accounts.

Some more detail: Here are some additional details on the components of the VAN.

The first component of the VAN looks at how will the forecasted demand for commodities matches the actual demand and consumption. One of the main goals of this component is to improve demand forecasting so that ordering is more accurate.

The next three components address the ordering and delivery of commodities. I have some difference in distinguishing between these three, one possible breakdown is that 2. is considering the ordering process, 3. is considering quantities, and 4. is considering the actual transportation. These are addressing the basic question of whether or not enough stuff is getting to the right place on time.

The fifth and six component are addressing the quality of goods being delivered. The fifth component is addressing whether or not all goods are being used before their expiration. The sixth is attempting to measure the potency and efficacy of the goods being delivered. This is interpreted as measuring quality of the warehousing and the cold chain, i.e., are goods exposed to extreme temperatures, and are the storage facilities (including cold storage) of adequate physical size to store the goods.