

Benin: Computer Simulation Models (HERMES) to Evaluate, Improve, and Re-Design Vaccine Delivery

Bruce Y. Lee, MD, MBA

Associate Professor, University of Pittsburgh



Rising to the challenge

GAVI Alliance Partners' Forum
5-7 December 2012, Dar es Salaam, Tanzania



BILL & MELINDA
GATES foundation

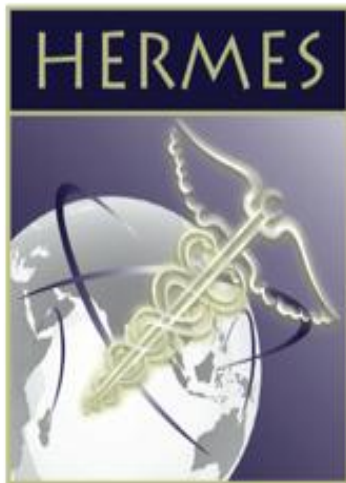


HERMES: Virtual Laboratory for Vaccine Delivery

Data on Supply Chain Structure, Storage Locations, Transport, Capacities, Personnel, etc.



Standard input deck



Project OPTIMIZE supply chain costing



Detailed simulation model of supply chain

Create a *freely available* and *user-friendly software tool* for decision makers to generate an *interactive simulation model of any supply chain* (= a *virtual laboratory*).

- Introducing new technologies
- Characteristics of technologies
- Supply chain configuration, policies, and operations
- Effects of differing conditions/circumstances
- Investment or allocation of resources
- Optimizing vaccine delivery



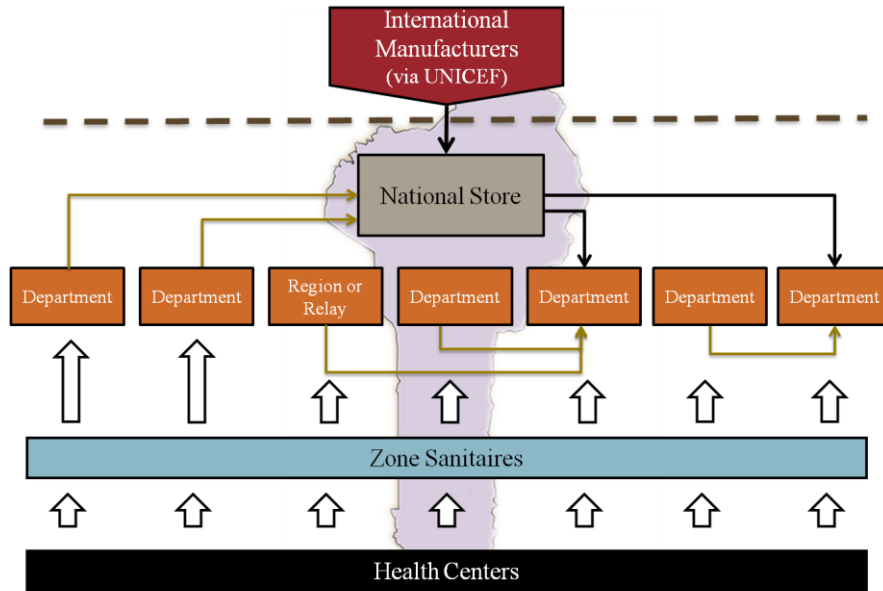
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Which re-design is the best option?

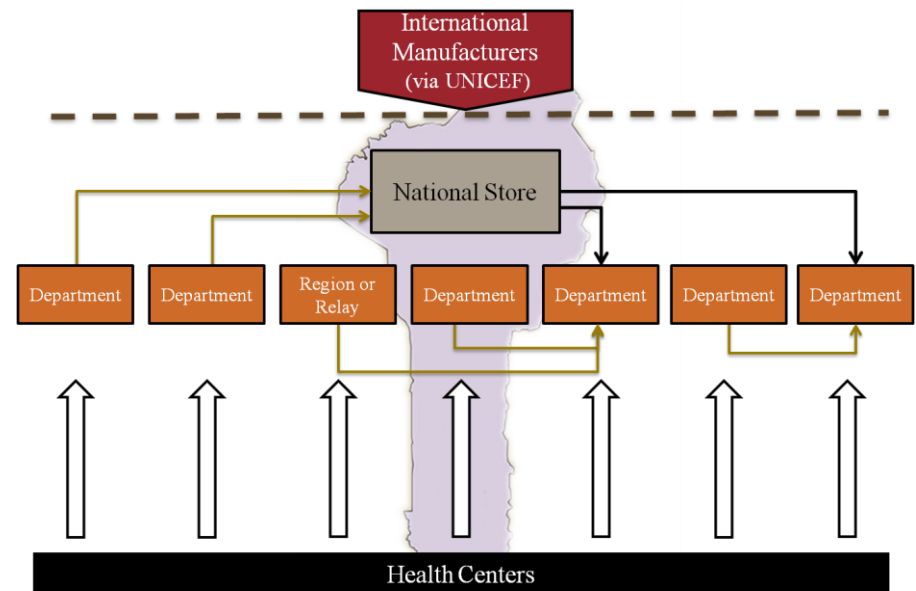
Zone Sanitaire (ZS)



Consolidating existing 80 Communes into 34 Zone Sanitaires

- Motorbikes pick up from Zones point to point
- or
- 4x4 trucks deliver to health centers in loops

Removing Commune Level



Removing Commune Level with and without addition of 5 department stores

- Motorbikes pick up from Departments point to point
- or
- 4x4 trucks deliver to health centers in loops

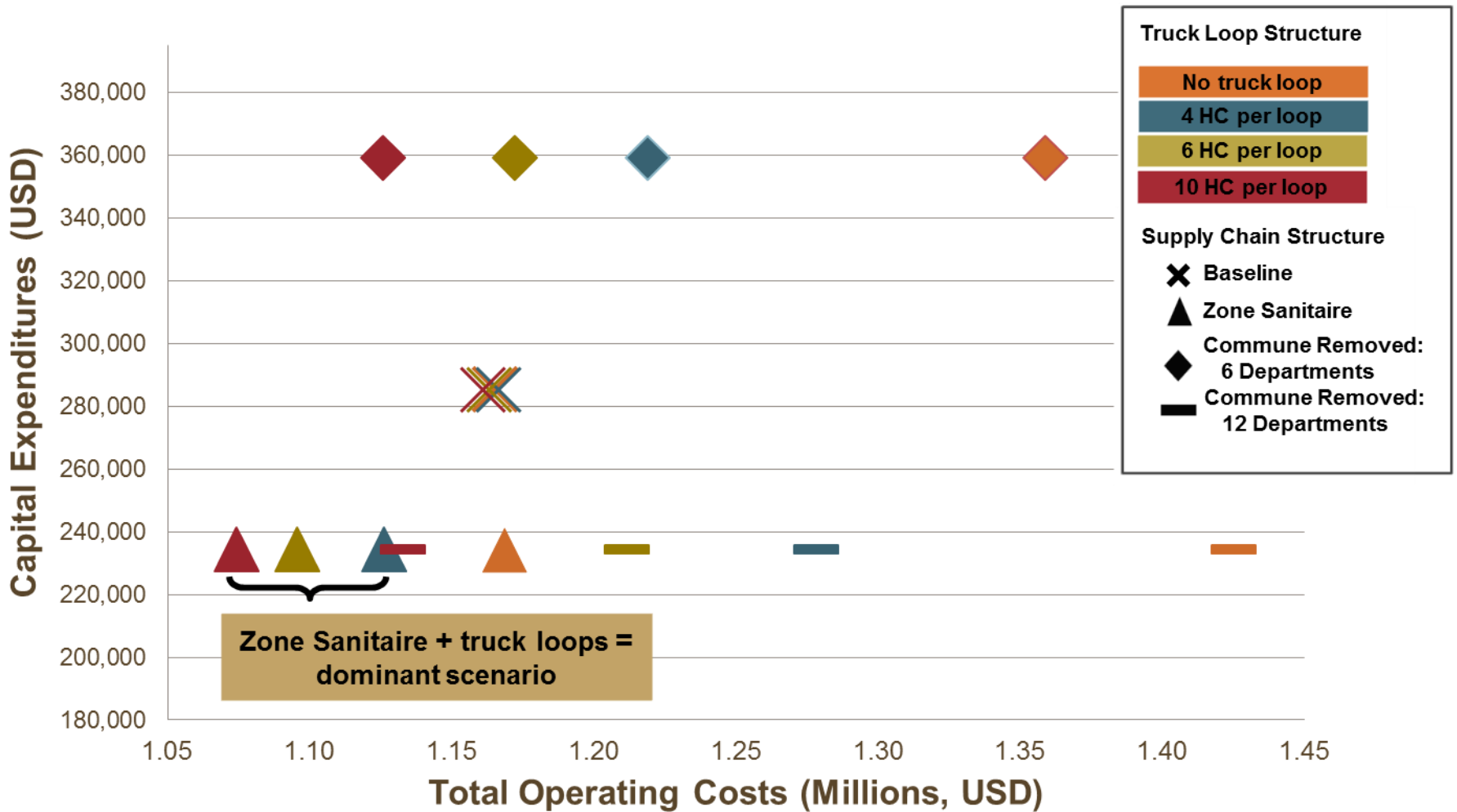


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ZS + Truck Loops: Lowest Capital Expenditures and Operating Costs

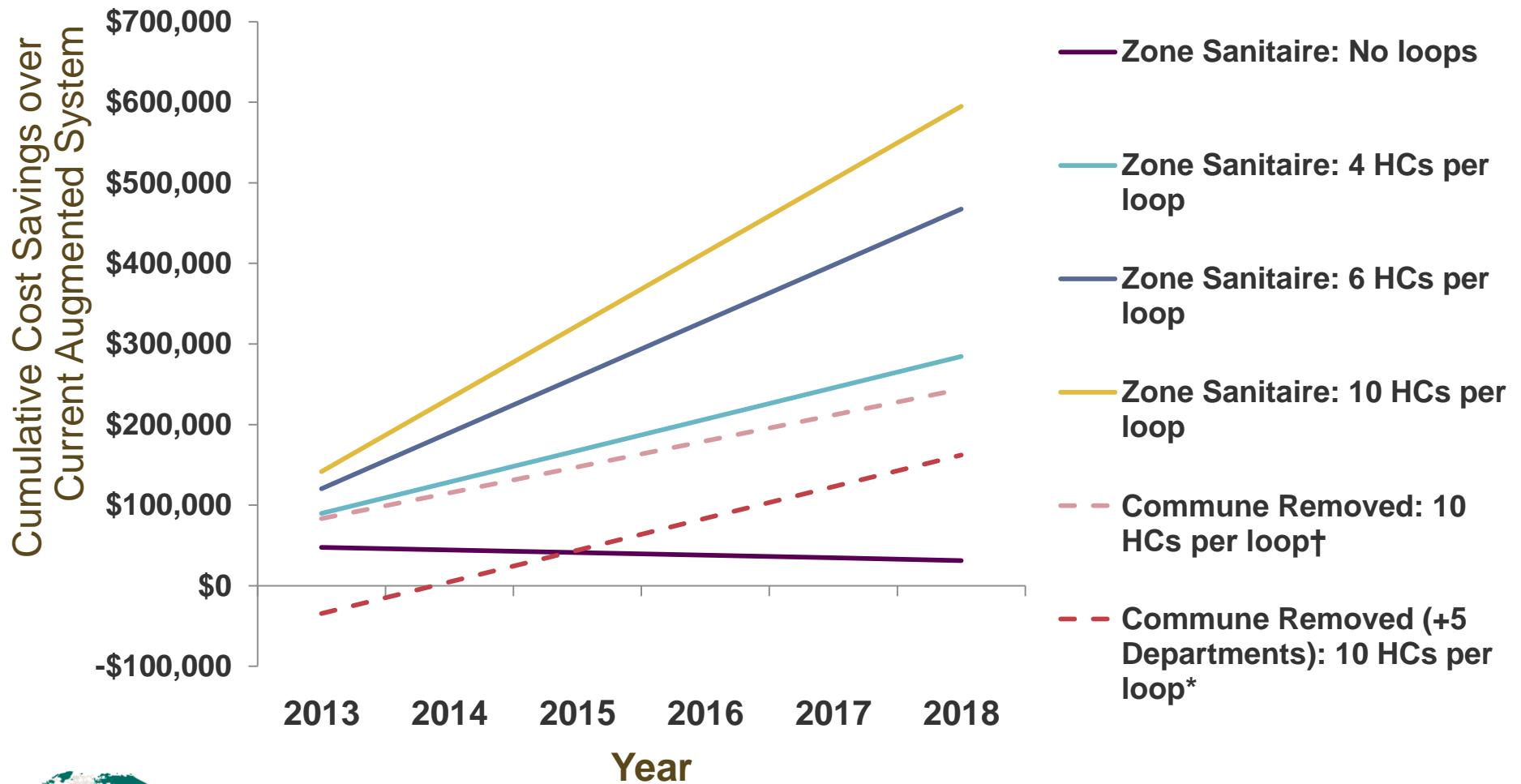


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ZS+Truck Loops: Over Half a Million \$US in Cost Savings after 5 Years



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