Finding Efficiencies in the Immunisation Supply Chain in Zambia

Workshop Report
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Introduction and background

System design is a process, which creates the plan or blueprint for how a supply chain should run, including how all of the components of the supply chain system (programme requirements, physical network, storage, human resources, asset management, planning, monitoring, and data) fit together and interact. Rather than narrowly focus on individual aspects of the supply chain independently from one another, system design is a comprehensive approach that considers the complete end-to-end supply chain, from distribution and inventory policies to information systems and human resources. System design is a critical tool to aid countries in decision-making to alternative supply chain models, which can be more robust, flexible, and efficient to better meet the rapidly changing needs of immunisation programmes.

In recent years, global thought leaders from Gavi, UNICEF and others have placed more attention to the inadequacies of many immunisation supply chains (iSC). As more and more vaccines are being developed and becoming available to low- and middle-income countries, there has been a realization that not enough attention has been given to the in-country supply chains that should be ensuring vaccines are available at health facilities where they are most needed. A Gavi-led analysis of the results of the Effective Vaccine Management (EVM) assessment across 57 Gavi-eligible countries indicate that the majority are not reaching the minimum standards for iSC as set by WHO (Figure 1). Immunisation supply chains have become inefficient, obsolete, and unable to match current demands to ensure viable vaccines down to the last mile of delivery. Health facilities are faced with stockouts, EPI managers have little data to base decisions on, and much of the burden for supply chain logistics has been passed to health workers.

These global issues with the performance of the iSC are similar to issues faced in Zambia. Population growth, several new vaccine introductions in the past years, and increased health facilities and districts, along with a lack of human resources and financial constraints, burden the iSC. At the global TechNet conference in Thailand in early 2015, stakeholders from Zambia – from WHO and the Centre for Infectious Disease Research in Zambia (CIDRZ) – learned about countries that have used a system design approach for their iSC and have introduced strategies such as skipping administrative levels for distribution to use direct delivery to health facilities, using dedicated personnel to manage supply chain movement, and collecting data directly from health facilities through distribution. Mozambique was one country...
highlighted for bringing efficiencies and reliability to the iSC, and CIDRZ followed up with VillageReach to find out more. That’s when the ball started rolling for system design in Zambia.

The conversation has continued since then with in-country stakeholder engagement and planting the seed for looking at different options for the iSC design to better ensure vaccines are available where they are needed at all health facilities across Zambia. With commitment from Government to move ahead and support from the Bill & Melinda Gates Foundation through VillageReach and CIDRZ, Zambia is moving the conversation around system design forward, interested in finding ways to improve efficiencies and performance of the iSC.

**Workshop objectives**

Together with CIDRZ and with technical support from VillageReach, the national Expanded Programme on Immunisation (EPI) at the Child Health and Nutrition Unit of the Ministry of Health (MoH) agreed to organize a workshop to bring key stakeholders and decision makers together to look holistically at the iSC and identify potential options or opportunities to pursue to bring about efficiencies.

The key objective of the workshop was to identify areas for improvement in the iSC and define optional scenarios for the supply chain to build out in a computer model, which could lead to a more optimal iSC design in Zambia. The unstated and underlying objective was to open people’s minds to consider change and system design. We recognised that no decision on system changes would be made during the workshop. But the hope was that participants would be exposed to the concept of system design and would start having those conversations with their colleagues about how to improve the performance of the iSC while finding efficiencies at all levels of the system.

Participants included the national Deputy Director of Child Health and Nutrition, the Child Health Specialist, an EPI officer, logisticians, pharmacists, and cold chain officers. Provincial and District level cold chain technicians, pharmacists, and MCH coordinators nursing officer were also in attendance. Medical Stores Limited (MSL) also had representatives, providing a great perspective for potential coordination points and learning from the essential medicines supply chain. This energetic group of folks spent two and a half days looking at Zambia’s iSC, celebrating what is working well, digging into the real causes of poor performance, and becoming aligned on areas to explore for improvements in how the iSC is organized and managed.

**Key themes from the workshop**

During the few days together, a few key themes emerged during the lively discussions. They are included here as a reminder for participants of where we found inspiration, where the challenging points were, and the ideas that will need to be further developed or completely forgotten. Many of these ideas, by their nature, were left unresolved at the end of the workshop but are part of a longer-term process that the MoH and its partners are undertaking.

**Finding efficiencies and improving the performance of the immunisation supply chain is a priority for the country.**

It was clear from the discussions that participants recognised that there are issues in the current iSC, and that it may be underperforming and not as efficient as it could be.

Consensus was found on what would be a highly performing immunisation supply chain in Zambia: reliable, efficient, cost-effective, driven by quality data, and has reliable cold chain equipment. It would be in an
enabling environment and is flexible. And it ensures that vaccines are available where they are needed most—the health facilities—and in a sustainable way. Consistent with their definition of an iSC as a coordinated system, participants are not looking for an idea that is good for the moment, but something that has a longer-term vision for impact, improvements, quality, and building on EPI management capacity.

**We have updated our cars since the 1970’s, so we can also update our immunisation supply chain.**

Participants recognised that the current iSC was designed in the 1970’s as vaccines were first getting introduced and that many, many changes have occurred since then—not only in the Zambian context but also in technologies and evidence of strategies that can lead to improvements. One participant eloquently said that we all get comfortable with our way of working, yet sometimes that way of working becomes outdated. Not one person in the room during the workshop still drove the same car from forty years ago; so why should we still rely on the same immunisation supply chain?

Participants realised that changes can and should be made to improve the performance of the iSC to ensure that vaccines are available in the most cost-effective and efficient way. Some of those things we discussed may be big overarching changes; many of them were little things that can be done to minimally adjust one aspect of management that may introduce some improvements.

We discussed the importance of change management and how to support that process. It was recognised that organisations don’t change, but it’s the people involved in them who adapt and adjust to apply organisational changes. And that change process can be frustrating, unknown, and even scary. One participant likened it to clay being moulded by a potter—the clay has no idea what the potter has in store for it, which creates concerns and fear of the unknown. Many of the potential changes discussed could involve changes in responsibilities, levels of authority, and some losing their Daily Subsistence Allowance (DSA), which would be contentious.

Some great ideas came out of the conversation that will help to create productive change management—ensuring all people affected understand what any change means to them and their job responsibility; clarify the rationale behind the change and the evidence it is based on; and work out all aspects of change—from transport responsibility to data collection to supervision—to ensure the process is fully understood.

Rightly so, there was insistence that any changes implemented should respond directly to problems that have been identified in the performance and management of the iSC. The group went through an in-depth analysis of root causes of problems or inefficiencies in the iSC, which led to the potential solutions through change. In doing so, participants recognised that the many different components of a supply chain are intertwined, with human resource issues affecting cold chain performance issues or distribution systems, justifying the need to look at an end-to-end supply chain holistically for long-term performance. Through this process, these ideas should be considered against the problems and the feasibility for change and based on evidence for change.
Sometimes you can find the good in the crazy.

A recurring theme throughout the week was those ‘crazy ideas’ to explore to find potential efficiencies in the iSC. A ‘crazy idea’ conversation gave folks a safe way to explore potentially radical ideas, knowing that they are just conversations at this point. Many of these ideas can be explored through computer simulation modelling to explore the details of those crazy ideas, in terms of efficiencies and improvements in vaccine availability down to the health facility level.

The next step in the crazy ideas was to ‘find the good in the crazy’. For example, one idea discussed during the week is to do vaccine distribution from the provincial level directly to health facilities, skipping the district level. This idea created a lot of controversy in terms of shifting of responsibilities, people losing DSAs, and confusion as to data collection and supervision responsibilities. Another crazy idea discussed was using three regional distribution hubs as MSL does. With modelling results, one of these crazy ideas may prove to be most efficient. With that in mind, stakeholders would have to find the good in that crazy idea specifically for Zambia. Does it make sense to reduce a distribution level? Is it feasible to use regional hubs? Is it worth the policy changes to find additional efficiencies? What makes sense for Zambia?

One important take-away for the group is that modelling can provide evidence for change, but this evidence must be considered within the Zambian context. Any decisions for change must consider the cost savings to a different distribution system as compared to the costs linked to the change; they must consider the political will and willingness to change; and they must consider the ease to implement any proposed changes.

So yes, there were many crazy ideas. Some were clearly not so crazy, like regular review and analysis of data with all levels of the system. Other crazy ideas will require a bit more analysis to find the good in the crazy or toss it out for being clearly crazy. And these will take analysis of evidence of change and consideration from all partners involved in the process.

The people who eat the same salt don’t quarrel with each other.

Through discussions about trying to find efficiencies, collaboration and integration of activities came up time and time again. But not just any integration—smart integration. The general consensus was that there are some distribution systems working well and integrating vaccines into those systems would risk diminishing their performance. Responding to this, the group settled on “smart” integration—what makes sense in the particular context to make an efficient system to address the problems in the iSC. For example, there are many partner organisations working in specific provinces and districts; could integration of distribution be explored with these partners? While they are delivering HIV drugs or malaria test kits, is there room to also include vaccines? The point was made that if all partners are at the same table, metaphorically eating from the same salt, they will find points of collaboration that will be beneficial to all.

The idea was proposed to piggy back on the Medical Stores Limited (MSL) distribution system that delivers essential medicines across the country. There could be potential for collaboration at various levels,
especially when facing transportation and fuel barriers. This is a possible  ‘crazy ideas’  that could prove to be efficient, however, further information on processes, procedures and policies must be investigated. It was rightly pointed out that this idea needs to consider what is happening behind the scenes between all relevant departments of the MoH. This idea can be further explored through modelling and change management, if it would be a possible solution to the current challenges facing the iSC.

This conversation of ‘sharing the same salt’ generated a lot of welcome ideas in terms of finding partnerships at different levels where they are accessible and available. No concrete decision came out of the discussion but there were plenty of ideas worth exploring. And it built on the idea and importance of teamwork to bring about efficient and sustainable changes.

**Nothing is static; improvement is a continuous process.**

Any improvements to the iSC are an on-going process. During the workshop, participants recognised that there are bigger picture changes that could potentially be made. Even those changes would have to be implemented, monitored, evaluated, and revised in an on-going way to continually seek improvement.

Beyond the bigger picture changes, participants identified many smaller activities that could be adapted immediately at different levels of the supply chain and lead to the process of continuous improvement. Some of the not-so-crazy activities included recognising high performing health workers—those who have gone above and beyond expectations to make sure vaccines are always available at their health facility, or their data is correct and timely, or there is follow-up to moms who may have missed part of the vaccine schedule for their children. Simple recognition through a letter of acknowledgement can help the motivation level and may inspire and motivate other health workers.

It was a general recognition from all participants that the common goal of a highly performing supply chain comes from consistent and continuous efforts to improve. The workshop helped identify some of the initial thoughts on how that can be done.

**Setting the stage**

The workshop began with getting everyone on the same page in terms of definitions and understanding of supply chain and common problems with the performance of immunisation supply chains and particular with Zambia. As a group, defining what a highly performing iSC looks like set the objective of the workshop: what needs to be done in order for Zambia to reach the goal of a highly performing iSC?

Participants came to agreement as to what a “highly performing immunisation supply chain” would look like for Zambia (Figure 2). It is efficient and effective in terms of timely distribution, appropriate product and quantities delivered while guaranteeing the quality of vaccines at the right cost. Cost-effectiveness comes into play that it is something that the country can sustain, not just a good idea for a short period of time. Human resources should be trained in logistics management and reporting, and cold chain equipment management. Staff should also be appropriately placed within the health system. An enabling environment was mentioned in terms of available funds and also, poignantly, in terms of the political will necessary to make it a highly performing iSC. Particularly for the iSC, functioning and appropriately placed cold chain equipment is imperative for the supply chain and to guarantee the quality of vaccines. Accurate and timely

As defined by the group, a supply chain is a coordinated system that involves the movement/delivery of goods or commodities from manufacturers/suppliers to the end user/customer while meeting required standards.
data availability and utilisation is also an important component, not only for on-going monitoring but also for forecasting and quantification. The final characteristic identified was flexibility with a supply chain that is able to respond to changes such as an increase in uptake, campaigns, new vaccine introductions, outbreaks, and environmental changes such as the rainy season.

An overview presentation of the main challenges of the iSC in Zambia as identified by the EVM assessment from 2015 and reality-on-the-ground identified some general buckets of problems:

- Transport issues, particularly at district and health facility levels
- Lack of communication
- Human resources and not enough people and health workers who are overburdened and unmotivated already
- Financial constraints
- Poor stock management
- Data that is inaccurate or unavailable
- Cold chain equipment without a maintenance plan to manage its functionality.

In small groups, folks dug into the details of those major themes of problems, asking the three or four “Why’s” in order to fully understand what the root causes of that general problem are. The next step of this process took a broader focus of how each problem is interconnected and depends on other components of the supply chain. Small groups joined with other small groups to explore the interconnectedness of the two themes. For example, groups were asked to look at how inaccurate data can lead to poor stock management.

This root cause analysis led to further insight as to the true problems for the Zambian iSC, as seen in Figure 3. The groups also started exploring options for improvement to address those root causes.

**Achieving a highly performing immunisation supply chain**

The workshop explored a **system design** approach for the iSC in Zambia. System design is a process, which creates a plan or a blueprint for how a supply chain should operate in the most efficient and effective way. It identifies how all of the components of the iSC fit together and interact. For example, how the transport network and delivery frequency can affect the required capacity of cold chain equipment at health facilities, or how appropriately placed and trained human resources could impact the level of effort required for logistics activities by facility-based health workers. It is a continuous process that starts by questioning the status quo, goes through identifying options for improvement, and then the consistent monitoring of any changes to refine and continue improving. It is important to note that system design is not referring to information management systems such as Logistimo and eLMIS. These types of information systems definitely play a part when considering all components of a supply chain and how they interact; yet, system
design is the process of considering all components, including how data is collected and used, and how best to arrange those to build on the capacity of each component.

System design and the analysis required to find improvements may look at transportation routes by ignoring administrative boundaries, for example. It may consider removing a layer from the distribution system or optimise the use of cold chain equipment by varying frequency of deliveries. What is important about this process is that it begins with a willingness to question the status quo, evaluate innovative approaches, and identify what is appropriate for Zambia.

Figure 3: Root cause analysis of the problems of the ISC in Zambia
Participants appreciated the case studies from Mozambique and Benin, two countries that have used system design to introduce changes to the iSC that have brought about evidence-based efficiencies and performance improvements.

In Mozambique, in 2001, responding to poor data quality, low vaccine coverage rate, insufficient cold chain capacity, high stockout rates, and a distribution system that was failing health facilities, an ‘informed push’ distribution system was introduced in one province as a pilot. This distribution system established regular and reliable monthly distribution from the provincial level directly to health facilities, removing the district level as a storage level while including district level personnel in distribution to ensure the provision of supportive supervision to health workers. The distribution team also collected data directly from health facilities, improving data quality and visibility.

This distribution system divided the province into three zones with each zone served by a dedicated distribution logistician, a vehicle, and an optimised distribution route. This replaced their multi-tier system that required a vehicle at the provincial level and each of the 16 districts, as well as time of EPI personnel at each level for fetching and delivering vaccines.

Results of the five-year pilot showed great improvements in the performance of the supply chain—reduction in stockouts, up-time of cold chain equipment, improved cost efficiencies as compared to a control province, and, ultimately, an increase in coverage rates.¹ ² These improvements have continued to varying degrees of success across all six provinces (out of ten) where an informed push model is currently being used, and now stockouts at health facilities are regularly less than 5% and vaccine availability is consistently above 95%.³

Benin also had a similar experience in introducing improvements to the iSC beginning in 2008. In response to a less than ideal vaccine coverage rate and strains on the distribution system linked to the introduction of the Pneumococcal conjugate vaccine (PCV) the previous year, the Benin MoH used computer simulation modelling to identify potential solutions to the design of the iSC. Results led to the decision to introduce three key changes: 1) apply transport networking using loops rather than ad hoc deliveries, 2) consolidate storage facilities, and 3) adopt an informed push distribution model.

After a one-year pilot in one district, the EVM performance score at both health facility and the district levels significantly improved between baseline and endline in the pilot province, particularly in the focus criteria of the project at the district level:

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³ From on-going monitoring of data through OpenLMIS information management system, 2015.
• Distribution score increased from 40% to 100%
• Vaccine management practices increased from 58% to 94%
• Infrastructure increased from 55% to 94% with the procurement of improved cold chain equipment

With these positive results, the MoH and UNICEF are now scaling up an informed push model to the rest of the country.

It is important to note that these two experiences were specific to Mozambique and Benin; Zambia is exploring options that are appropriate for this country context. What worked in other countries may or may not work in Zambia. The point of a system design approach is that decision makers and stakeholders in Zambia explore different options, generate the evidence to make changes, and analyse those options within the feasibility of the country context.

The other major take-away from a system design experience in other countries is that this is a management approach, not a single one-time pilot. It’s adapting efficient and effective management approaches, policies and procedures that then lead to a sustainable vaccine supply chain. This matches the resounding interest expressed during the workshop of any changes being able to be absorbed and adapted in Zambia in a sustainable way.

Participants demonstrated a good understanding of system design through the opening activity on the second day of the workshop where each person was asked to contribute to the definition of “system design”. The key themes as documented in Figure 4 reflected the examples from Mozambique and Benin and the hopeful undertaking in Zambia.

**Modelling: One tool for system design**

Computer simulation modelling is one tool of system design that can identify and help understand the components that influence a supply chain. It can help predict behaviour of the system when one component changes and its impact on other components (Figure 5) to help in-country decision makers consider changes to the design of the iSC. It can unlock the power of creative thinking on the supply chain design by allowing people to test any number of improvement options, even radical ones, in the safety of a “virtual lab” of a computer model. This testing can then create the evidence required for implementation of any changes.

Modelling can be likened to playing with Lego’s if you can consider the different Lego pieces components of the supply chain. During the workshop, participants got to “play” with Lego’s to build an iSC to answer questions that would affect its design. For example, if a new vaccine is introduced, would increasing delivery frequencies balance the assumed required increase in cold chain capacity? Adding in one component would invariably change the arrangement of the Lego’s, as it would in a real supply chain.
During the workshop, it was stressed that any modelling results need to be considered with many other criteria. Decision makers must consider the costs to change the system compared to any cost savings found with a new distribution system. The feasibility is also a factor—both the physical feasibility, political, and leadership’s willingness to change. Policies could be effected by any changes to the distribution system, and the level of effort to change those must be included in the analysis. And the ease to implement technical and operational changes must also be included in the analysis. All of these must be weighed with the potential benefits of cost savings and improved performance as demonstrated by modelling.

One example of modelling from Mozambique was provided to stress the importance of including the context in the analysis phase of any potential changes to the iSC. When Mozambique was initiating a modelling activity to consider scaling informed push across all provinces, one idea explored through modelling was using the recently purchased national level cold trucks to deliver to health facilities as well while delivering to province and district storage units. The modelling results showed a significantly positive impact of this scenario—as expected, vaccine availability increased at the health facility level, logistics cost per dose reduced, and the required number of vehicles for sub-national distribution disappeared. At some point during the analysis process, however, a provincial level EPI manager rightly pointed out that it was a great idea, but those roads to health facilities could in no way accommodate that cold truck. It turned out this idea was truly crazy; but the good that was found in it was allowing folks to open their mind to potential solutions that they normally wouldn’t consider.

Other examples were provided as to how modelling helped revise transport loops in one province in Mozambique with the introduction of Rotavirus vaccine. Modelling indicated that the two informed push delivery loops serving the province would be maxed out of capacity with the introduction of Rota. The provincial government adjusted the transport loops to four instead of two, using the same amount of time for distribution but allowing for additional capacity in the transport loops. Another example, as previously mentioned, Benin’s modelling activity led to direct implementation of changes to the system design to positive results.
Participants got to look at sample modelling results to build capacity in understanding and analysing them and how it could be useful for Zambia. It was not expected that participants would become experts at modelling. But the hope was that the introduction to modelling results and analysis would help understand how changes in the system design can effect cost-effectiveness and performance. One surprising example came from a modelling example from Mozambique with the introduction of a new vaccine (Rotavirus). To the workshop participants’ surprise, this actually reduced the logistics cost per dose as more vaccines delivered led to fuller transport capacity and cold chain capacity, so the change introduces efficiencies because more stock is passing through the supply chain.

The expectation is that as Zambia begins to explore iSC design scenarios through modelling, understanding the results will lead to better decision-making for improvements. MoH and CIDRZ have started collecting data that will be input into the modelling. Participants reviewed the data collection process and found consensus on assumptions that will have to be included into the model, particularly around labour time spent on EPI logistics.

Exploring the options for Zambia

The discussion during the root cause analysis of problems in the iSC naturally led to ideas for potential solutions. This is where the “crazy ideas” came into play. Participants were encouraged to be open to those “crazy ideas” – potential innovations or solutions that at first glance look not feasible, too disruptive, or too drastically different than the current system. Most crazy ideas, however, may have some good in them but need to be explored and analysed to find the good in it. Remember, if Henry Ford, the father of the first affordable automobile, had asked his neighbours what they wanted in better transport, they would have said a faster horse. He looked deeper and discovered the ‘good in the crazy’ idea of making automobiles accessible to all.

Not surprisingly, the recurring theme of the small group analysis of root causes was the lack of funding. Clearly this is a fundamental issue, but during the workshop session on identifying potential options for Zambia, the solution of “more funding” was not allowed. The idea was get folks to think differently, a bit out of the box, and identify solutions that can be done immediately without any significant investment, as well as to consider those longer-term goals and changes that would require funding.

The group identified many potential activities for improvement of the performance of the iSC, some of which can be explored through modelling. Modelling will provide a high-level analysis of these potential changes, in terms of cost and vaccine availability implications. With those results, stakeholders will need to analyse options to identify true possibilities for the iSC.
### iSC scenarios to model:

- Current distribution system
- Regional distribution with one area delivering to several districts using dedicated personnel
- Regional distribution with one area delivering directly to health facilities using dedicated personnel
- Provincial delivery direct to health facility
- District level delivers to health facility
- National level delivers to district; district to health facility
- Optimised system for transport and cold chain equipment

### Variations on the models:

- Variable frequency intervals (one month, six weeks, two months, depending on cold chain capacity)
- Remote temperature monitoring for improved quality of vaccines and reduced burden on health workers
- Include district person for supervision in different scenarios
- Collaboration effect with partners at different levels and its reduction on costs

It was great to see many other ideas generated through this process—beyond strictly system design options. Participants categorised these activities in three ways: things that can be done now-now; activities that should be on-going; and activities to still find the good in the crazy. These ideas are detailed in Figure 6 to not lose sight of them along the way towards finding an efficient iSC for Zambia.

**Change does not come without challenges**

Concern over potential changes came up during the first day of the workshop. Some of the ideas, if implemented, could be quite disruptive, changing people’s responsibilities, roles, and processes that guide them; it could also result in some people not receiving DSAs for some activities. A participant poignantly noted that moving a fridge from one place to the next is relatively easy; it is much more complicated to manage change of people’s roles, responsibilities and the system in which they work.

The topic of change management led to a great discussion among participants about leading that process. Change management can be considered a structured approach for supporting people through the process.
of moving from the current state to the future state. The process should guide us on how we prepare, equip, and support individuals to successfully adopt change for success and positive outcomes.

As we went through a role-play of “EPI staff” from each level of the health system, some main ideas came out for facilitating the process of change (Figure 7).

**What comes next**

Workshop participants generated a lot of ideas and thoughts for immediate next steps as well as longer-term ideas to explore. A few steps are clearly defined for the modelling activity:

- MoH/CIDRZ will continue to collect data for modelling to build on the data from four provinces already collected, expected to be complete by the end of September 2016.
- MoH/CIDRZ will work with VillageReach and a modelling firm to build the Zambia model and scenarios that explore the options and variations of the iSC, which is expected to be complete by January 2017.
- With the results of the modelling, stakeholders will dig into the analysis to find options that are feasible, logical and sustainable for the Zambia iSC.
Beyond modelling, the list of activities generated by participants is an excellent place to start for continuation of this process. It is important to note that this workshop was only the beginning of the process and the conversation; the hard work is still left to do. And that requires each individual person dedicating themselves to improving their portion of the iSC. Each participant was asked to write down three key activities that he or she can do in the next six months to move this priority forward. Each person is accountable for doing that. But also to note, each person is responsible for holding their colleagues accountable as well.

At the end of the workshop, participants confirmed their commitment to finding improvements in the iSC for Zambia to ensure that vaccines are available, that the supply chain is reliable, efficient and cost-effective, and that it is all done in a feasible and sustainable way. This group of energetic, dedicated, and driven leaders are now leading the way to improving the iSC through questioning the status quo, having an open mind to explore options, and committing to the better health of all Zambian children.

**Figure 7: Activities to facilitate the change management process**

- We can't be cast in concrete; we must be flexible.
- People need to fully understand the change taking place and the rationale behind it.
- Changes need to link to specific problems to address those.
- Communication is key--ensuring all people involved understand the change process.
- Bigger level changes like policy revisions depend on each person to advocate for.
- "Leadership" is not just head honchos sitting in Lusaka; commitment from personnel from all levels of the system will be required to improve the performance of the iSC.
- Decision makers must consider the impact of any changes across the iSC; think through all changes to best plan or them.
- We need to get feedback from other colleagues during this process, not only at the time of implementation of changes.