

Building the Bridge from Human Resources Data to Effective Decisions: Ten Pillars of Successful Data-Driven Decision-Making

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Introduction

The field of health care requires the availability of well-researched knowledge supported by compelling case studies or clinical trials to make sound health-related decisions. This ensures that health innovations and new practices are informed by the best available data and research evidence. However, the same rigor is not necessarily applied in the field of human resources for health (HRH), particularly in using workforce data to make sound strategic, policy and programmatic decisions. As such, a key challenge to human resources (HR) practitioners and policy-makers is to contextualize HR data and information for more effective decision-making and subsequently for policy formulation and practice.

With external assistance, developing countries in sub-Saharan Africa are beginning to establish better human resources information systems (HRIS) as part of a comprehensive and integrated response to some of the fundamental challenges posed by the health crisis. While this is a positive development, it is equally important to begin thinking about simple, practical approaches for supporting HR planners and senior decision-makers to be effective leaders and managers of HR data.

Data-driven decision-making (DDDM) is an ongoing collaborative process of making informed HR policy and management choices based on appropriate analysis of relevant data and information.

The purpose of this technical brief is to present ten fundamental and practical pillars to aid HR managers, practitioners and policy analysts in building a bridge from HR data and reports to effective HR policy and management decisions.

1. Making Use of the Data

One of the major misconceptions about effective use of HR data in decision-making might be summed up as follows: *Build or gather data and they will use it.* We now have sufficient experience to know that it is not enough to make data available. Health sector leaders need a process in place for analyzing reports and information, getting it to the right decision-maker at the right time, and ensuring

the power and resources to act on the data. However, if this process is faulty or insufficiently collaborative, DDDM can produce uninformed (and incorrect) decisions or shift the focus away from priority issues.

2. Developing a Culture of Inquiry

Effective data utilization requires a mindset as well as an organizational ethos that actively invests in a culture of inquiry that helps people question the status quo. In the field of HRH, this culture of inquiry should be characterized by individuals, teams and work groups at different levels of the organization who are regularly probing and scanning the environment in ways that will help them determine and provide answers to a set of priority HR policy and management questions. For example, the following questions can be asked to discuss and map the use of information to support various decisions:

- What HRH data do we need to gather in order to:
 - Advocate for more workers
 - Address maldistribution of existing workers
 - “De-ghost” the payroll, by ensuring that former employees do not continue to receive payment
 - Track health workers who are leaving and determine why they leave, where they go, what they actually do when they get there
 - Influence policies on staffing norms, recruitment, deployment, career path development and continuing professional development?
- How do we actually use data; what decisions do they inform?
- What is the mechanism for facilitating the use of these data (such as department meetings, senior management meetings, annual sector review meetings, HRH working groups, HRIS stakeholder leadership groups, etc.)?
- How often does this process take place?
- What issues, if any, influence the quality and security of data use?

3. Context Matters

The context is the overall environment or setting in which HR data are being gathered, analyzed

Data-Driven Decision-Making (DDDM)

DDDM is divided into three functional areas:

- *Collection, integration and dissemination of data*
- *Regular analysis, quality review and reporting of data*
- *Procedures for acting on the data to influence policy and practice.*

When approached collectively, these functional areas provide an integrated process for workforce planning and management. DDDM can also be used as a road map for organizations trying proactively to address challenges or opportunities in a rapidly evolving and complex HR marketplace.

Presentation of Data

The way in which data are gathered and presented can also influence decision-making and policy formulation. Compelling data that have been gathered, synthesized and disseminated with a strong advocacy slant tend to capture the attention of senior decision-makers as opposed to data shared in the form of routine reports that are only distributed in management meetings or one department.

Compatibility with Values, Interests and Past Experiences

We seldom approach data and evidence as completely non-partisan or unbiased brokers. Instead, we are likely to bring to the table some of our own values and assumptions about what to expect, and that attitude sometimes determines how we initially interact with data or data sharers. The assumption here is that if the data bring up an issue that we deeply care about, then we are more likely to notice and pick it out (and vice versa).

and used to make policy and management decisions. It is important for HR planners and managers to understand the various dimensions and determinants of the context within which data are used to make decisions, as it is essential for effective policy-making and practice. Some important elements of the context include:

- **Social, political and other forces at work in the HR policy environment throughout the country.** Some decisions will require the engagement of political actors at different levels of government. As such, depending on the nature of the decision to be made, it is essential to engage in some political risk assessment to determine if the information resonates with senior policy-makers, politicians or professional associations. In other instances, several key agencies—such as the Public Service Commission or the directorate of personnel management that are often located outside the Ministry of Health but still exercise major responsibilities and HR “decision space” over what happens to the health workforce—need to see the issue as important and value the decision or action that may be taken as a result of it.
- **Historical and cultural factors.** For example, if there is a historical trend in the health sector or the country that tends to support a larger, more proactive role for government-funded institutions to supply all health workers, such a context may inhibit a new data-driven idea that supports the introduction of other actors (e.g. the private sector) as new suppliers of health workers.
- **Health system factors.** Sometimes capable and influential HRH “knowledge brokers” are needed to work the system.
- **Resource contexts.** Sometimes the factors (human, financial, infrastructural, skills-related) required to influence policy development and decision-making often gain strength at the expense of the data. In other words, the data may be perfectly legitimate but the resource context in terms of implementation may impede the decision-making process.

4. Aligning Different Forces, Interests and Beliefs

Policy analysis theory suggests that data “affects existing beliefs of important people about significant features of the problem under study and how it might be solved or mitigated” (Bardach, 2000). However, HR planners and policy-makers are faced with a unique challenge: they may have access to different types of HR information from multiple sources, in a variety of forms and perhaps at different times and frequencies. The decisions that need to be made using these data may also involve different people across multiple agencies who do not work together all the time. These connections and relationships will need to be acknowledged and aligned by HR planners and managers

for the decision-making process to be fruitful. Otherwise, there is potential for conflict, paralysis or failure to use the data.

Additionally, it is insufficient for only a few people in an organization to examine HRH data and information as part of their daily functions and expect to make sound, binding decisions. One approach that is being considered in Uganda is the development of a simple framework for analyzing and presenting HR data and making the data available for discussion during annual joint review meetings of the health sector. Such a streamlined and collaborative approach to sharing HR data is important given the sensitive nature of HRH, and ways in which such data are used in effective decision-making are largely determined by a broad range of actors. Similarly, whether or not data will generate any decisions will also depend on the beliefs, past experiences, values and skills of these players. Other important factors include timing and economic costs of those decisions.

5. Preparing for Data Skeptics

Data users determine the usefulness of a data set by asking such questions as:

- **What is new here? How is this different from what we already know or have?** As data collectors and sharers, we may be telling people information they have known for years but never acted upon. Part of the solution may lie in combining these messages with ways of unpacking the mindset that generates such complacency or skepticism in the first place.
- **What do these reports mean?** The complexity of the reports and evidence may elicit the feeling that more work is needed just to understand the evidence, which can lead to a lack of interest or unwillingness to engage.
- **What are the perceived benefits of change?** Individuals often tend to avoid change, but they are also influenced by the perceived benefits of change (Stocking, 1985). As a result, if HR planners and managers are able to identify within the organization a critical mass of active seekers of new ideas who are favorable to change and even willing to take risks, then there are higher chances of success.

6. The Power of the Individual

Individuals are key participants in decisions about how data should or should not be used, as it is individuals who decide whether to accept or reject new data findings. Even when presented with compelling data, people tend to accept or reject new ideas based upon individual preferences. Evidence from the literature suggests that these individual decisions are influenced by a raft of personal qualities and capacities that any decision-making process must take into consideration (Rogers, 1983). At the individual level, these factors include:

- Complexity of what is being presented
- Values and beliefs, including current position on certain issues
- Risk perception, or the extent to which an individual avoids change
- Position or status of the individual within the organization
- Knowledge and skill sets
- Organizational support for change
- Partnership links, an ability to network and share knowledge across the social system.

7. The Power of the Organization

Several organizational factors bear on the decision-making process:

- Organizational structure, function, values, culture, clout, composition and socioeconomic context (Stocking, 1985)
- The nature of staff (age, gender, racial composition), degree of skills and level of training (Kaluzny et al, 1974)
- The extent to which new ideas are welcomed by management figures, and the kind of support available for innovation of action
- The influence of interest group activity or public opinion on the organizations with HRH-related decision-making functions
- The extent to which data can generate perceptions of legitimacy, an environment of trust and collaborative partnerships among different players within the same organization and among the various organizations that need to work together.

8. Navigating Difficult Conversations

From time to time data will produce instances that involve difficult conversations within a team or organization that can cause instability or chaos. This normally happens when new data challenge a particular status quo or policy issue that has been in place for a long time, in ways that lead to differences in opinion among team members. If the ensuing interactions are not handled with tact and sensitivity, the situation can easily slip into an insidious team conflict. Generally speaking, many people are uncomfortable with conflict and they fear the escalation of negative emotions in difficult conversations (Senge et al, 1994). Or, if people believe they want a decision to come out a certain way, they may feel apprehensive about sharing certain data that may produce a negative outcome. Fears of difficult conversations can often lead to avoiding or postponing important discussions because people are worried about controversy and damage to workplace relationships.

Part of the strategy for strengthening DDDM includes an interactive session that uses a skilled facilitator and a communication-based model for reflecting on, understanding and

responding to difficult conversations. One method is to use a humorous, all-inclusive, nonthreatening communication style and provide plenty of relatable examples to guide groups of decision-makers through potentially difficult conversations that data may generate, ultimately reaching a mutually beneficial common ground. In most cases, the facilitator does not aim to “correct” or impose order on the group conversation, but might point out the presence of polarizing viewpoints, encourage some ways to suspend assumptions and steer the conversation toward common ground. A second key factor is to present potential conflict-producing data using clear and nonjudgmental language, always leaving open the possibility that users might see and hear the data and still make a decision to de-emphasize or even ignore the information.

9. Process and Relationships

People make strategies, plans and data successful by transforming them into policies, practices and results. As such, the nature of relationships between the potential data users within an organization is one of the most critical dynamics determining success or failure. However, this dynamic is often underestimated or even overlooked in the process of DDDM. This is unfortunate because when correctly executed, the process can:

- Bring core issues to the forefront
- Allow participants to overcome individual, professional and organizational barriers
- Build a greater sense of joint ownership
- Increase communication and understanding
- Build a cohesive leadership team focused on moving the business of HR planning and management in the right direction.

10. A Journey, Not a Destination

Theorists supporting DDDM contend that evidence-based decision-making is not a one-time solution or a standard tool to be applied *ad hoc* or at random. Rather, it is an ongoing knowledge-driven process that requires continuous collection, analysis and sharing of data, because that is the only way in which trends—both positive and negative—can be discovered and acted upon (Doyle, 2002).

DDDM is also a dynamic, collaborative process; it is a core function that must be embedded into the ethos of ministries of health. It provides decision-makers with the collective ability to grapple with the most important HR questions of the day, weigh the available evidence, consider several options and think both strategically and practically about the decisions that they make. HR planners and managers need to lead this journey and act as agents of change. Without their commitment, it will be difficult for HR data to become an integral part of health

Social Networking

Organizational affiliations that individuals maintain tend to impact their values, beliefs and orientations, creating what is commonly referred to in the DDDM literature as the “band-wagon effect”—because if you see data that are compatible with your personal and professional values and those of your social network, you are more likely to adopt them and vice versa (Dobbins et al, 2002).

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sector operations. They can start to model data use and encourage it by sharing the benefits and successes. They can also schedule time for departmental teams, senior management and even multisector teams to meet, review, query and discuss reports needed to inform decisions.

Conclusion

The primary aim of any HRIS should be to promote better use of data to drive effective decision-making. This objective is shared by many organizations including development partners such as the United States Agency for International Development and the World Bank. Similarly, ministries of health may want

to know that data collection efforts yield maximum value in real, human terms and lead to effective decisions—and do not just result in more reports. As such, it is important to invest in developing a sustainable process and culture that actively encourages people to engage in dialogue opportunities around HR data and information, and ultimately make effective policy and management decisions. On a final note, it is worthwhile to periodically assess how access to quality data has actually resulted in more strategic decision-making and then share those examples to help foster the culture of DDDM.

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