CapacityProject
knowledge sharing

January 2006

concept paper 2

the CapacityProject
Planning, Developing & Supporting the Health Workforce

PowerPlan: Data-Driven Health Workforce Planning

To Learn More:
Geoff King, Human Resources Policy and Planning Advisor, gking@capacityproject.org
Dykki Settle, Information Systems Advisor, dsettle@capacityproject.org

Introduction

The Capacity Project, a five-year human resources for health global leadership initiative funded by USAID, is developing a software tool with the working title PowerPlan that will improve how health sector and program decision makers plan for their health workforce needs. PowerPlan is user-friendly software that will allow planners to: evaluate current and future human resource needs by cadre; compare the needs to currently available and projected human resources; and test various interventions to find the best ways to close the gap between demand and supply of needed health care workers.

PowerPlan is conceived as part of a suite of software tools tentatively called PowerTools. The other components of the suite are PowerTrack, a human resources information system that will enable organizations such as ministries of health to track data about their workforce; and PowerSupply, a database designed for licensing authorities to maintain training and licensure information about all human resources for health in a country. PowerPlan can build on data collected in either of the other two systems to project available human resources into the future, which can then be compared to the organization's or country's needs.

Objectives

- To promote and support data-driven decision making among workforce planners in developing countries
- To illustrate the factors that affect human resources, workforce needs and interventions that can align needs and resources over time
- To serve as an advocacy tool and strengthen stakeholder commitment and collaboration in developing workforce strategies

Conceptual Architecture

The Human Resource Planning Society defines workforce planning as "aligning human resources with business or service plans and objectives, in order to ensure delivery." (Human Resource Planning Society, New York) Workforce planners need to understand three basic, interacting components:

1. **Current supply and projected losses:** Current supply encompasses the number of people working, the jobs they perform within a cadre and where they work. Planners need information to help them anticipate losses of people from the supply. PowerPlan will help planners explore predictable losses, which may be broken down into categories such as:

continued

USAID
FROM THE AMERICAN PEOPLE

- retirement age, which is usually based on government or organizational policy and is therefore manageable by planners and policy makers
- sickness or death, an important cause of losses that has been increasing with the HIV/AIDS pandemic
- voluntary resignation, when staff choose to leave a position for various reasons, which may include job dissatisfaction or identifying more attractive work
- dismissal, when management chooses to let go of some staff for poor performance or other reasons.

PowerPlan's training materials will include information to help workforce planners better identify the factors behind the current supply and losses. This will enable them to select interventions targeted to improve retention and evaluate their impact.

2. **Requirements (demand):** Planners need to know how many people are required, what skills are required and where they are required. Early versions of PowerPlan have been used to help countries formulate their national health plans by promoting discussion about the relationship between these requirements and the nation's agreed-upon health objectives.

3. **Closing the gap:** PowerPlan will graphically display projected numbers of people in each job and against requirements to help planners and decision makers understand the size and scope of the gap between the supply and their needs. These graphs may be broken down by geographic location and gender. Planners and decision makers can then evaluate various interventions to determine which approaches will provide the best way to close that gap.

   There are a few standard approaches to closing the gap, and PowerPlan's training materials will provide guidance on which approaches are the most appropriate and feasible for the context. The tool will allow users to try out or "model" various interventions such as ways to:

   - reduce losses (for example, increase mandatory retirement age, improve job satisfaction or increase incentives and motivation to stay on the job)
   - increase supply (for example, increase pre-service education enrollment and graduation rates, increase numbers of workers with needed skills through in-service training or offer incentives to work in high-need areas)
   - reorganize work or meet demands differently (for example, shift tasks to more available cadres, shift tasks to home or community-level care providers, improve performance and productivity or establish clear performance expectations focused on high-priority services).

   PowerPlan enables planners to model different options and combine them into scenarios. They will see the results as graphs, which will allow them to quickly evaluate the impact of the interventions they have chosen. By presenting the data in a compelling and understandable way, PowerPlan will permit diverse stakeholders to better communicate, facilitate a shared understanding of critical issues and strengthen a commitment to work together to address complex human resources management issues.

Intended Audience

PowerPlan is intended for use primarily at the country level by workforce planners and decision makers within the Ministry of Health or a governing body in developing countries. The main objective of deploying PowerPlan is to help develop and implement a national plan to meet human resource needs in one or more cadres of health care workers. However, PowerPlan is not context-specific and may be adapted for use at the organization level such as a hospital or other facility, in a particular region or urban area within the country, or even in a larger region encompassing many countries. The user determines the context in which to apply the PowerPlan models by defining the actual and required human resources and running various models based on their context. PowerPlan's extensive documentation, training materials and real-world examples will guide the user in making those decisions.

Indeed, PowerPlan's use is not limited to the health care workforce and may be applied to other categories of human resources. PowerPlan will adapt to changing needs and thus will be a viable tool for workforce planning well into the future.

Technical Approach

The package will include the software itself, instructions (which are integrated into the software and can be produced as a printed manual), a training manual with examples and explanations of workforce planning approaches, and basic technical assistance available from the Capacity Project.

PowerPlan's core technologies will be chosen to best accommodate users in settings with low-bandwidth connections to the Internet and poor computing infrastructure. PowerPlan will be built with free, readily available technologies and hosted on a computer at Capacity Project/IntraHealth. Anyone with a web-accessible computer can connect to the software from any location, enter data and run models. PowerPlan may also be installed on a Ministry, USAID Mission or other local computer with appropriate technical assistance from the Project.

To start running intervention models in PowerPlan, only basic human resources data are required. Data may be imported from existing systems, obtained from one of the other PowerTools systems or entered manually. The PowerPlan documentation will offer guidance on assumptions, ensuring that the data entered fit within logical ranges and providing averages and default assumptions when data are not readily available.

To ensure that PowerPlan best meets the needs of its intended audience, the software development process will be iterative and driven by use cases. Test releases will be applied in selected countries, and iterative sequences of use cases, analysis and programming will address issues that arise during testing. The final version will be released in June 2006.

The Capacity Project
IntraHealth International, Inc.
6340 Quadrangle Drive
Suite 200
Chapel Hill, NC 27517
Tel. (919) 313-9100
Fax (919) 313-9108
info@capacityproject.org
www.capacityproject.org

The Capacity Project Partnership

INTRAHEALTH INTERNATIONAL INC
Affiliate, University of North Carolina at Chapel Hill

JHPIEGO
An Affiliate of Johns Hopkins University
A GLOBAL LEADER IN IMPROVING HEALTH CARE FOR WOMEN AND FAMILIES

PATH
A catalyst for global health

EMERGING MARKETS GROUP

LATH
LIVERPOOL ASSOCIATES IN TROPICAL HEALTH

sas®

IMA Interchurch Medical Assistance, Inc.

MSH MANAGEMENT SCIENCES *for* HEALTH
a nonprofit organization strengthening health programs worldwide

TRG