
Vision Document

iHRIS Plan

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iHRIS Plan is a software program that will improve how health workforce planners and decision makers plan for their health workforce needs in developing country settings. As a modeling tool, iHRIS Plan will:

- promote data-driven decision making among workforce planners;
- educate planners about the factors that affect human resources and workforce needs;
- and strengthen stakeholder commitment and collaboration in developing workforce strategies.

iHRIS Plan will enable planners and decision makers to evaluate their current and future human resources needs by cadre and then compare those needs to available health workers. The software will graphically model available workers and workforce needs over time, enabling the user to visually assess the gap between them. The user may then define and test various interventions to try to close the gap between actual and required resources, and see the results of those interventions as they are dynamically calculated.

Purpose

The purpose of iHRIS Plan is to support health workforce planners, either working in or consulting with a Ministry of Health, in projecting workforce needs and impacts of policy on the health workforce at the national level, and presenting those projections to health policy and decision makers. iHRIS Plan will supply credible evidence to support health workforce planning and policy decisions. The goal is help decision makers focus on the path to take to achieve their envisioned outcome for the health workforce. These results should provide the basis for a short-term, national, strategic health workforce plan.

Using iHRIS Plan, workforce planners and decision makers can understand what will happen if different actions are taken to influence the health workforce or if no action is taken. These projections will help them prioritize policy changes by demonstrating which changes have greater or lesser impact on the health workforce. The projections will also alert planners to potential problems in the health workforce supply.

The workforce planning model is intended to help workforce planners and policy makers answer the following types of questions:

- In the absence of any policy change, what will my country's health workforce look like in ten years?
- Based on current population projections, how many more nurses will I need to meet the need?

- How much will increasing my organization's mandatory retirement age increase available staff over the next ten years?

iHRIS Plan will produce graphical projections for each year in the modeled timeframe that can be disaggregated by cadre for presentation to stakeholders. These projections will compare the actual numbers of health workers to those that are required and present various scenarios for closing the gap between the two. In addition, tabular reports can be produced projecting actual numbers as well as health worker salary and training costs. Finally, the software will assist users in completing a simple strategic plan, using a supplied template, for achieving health workforce goals.

Stakeholders

The stakeholders have a vested interest in successful outcomes from iHRIS Plan but do not generally interact directly with the software. They work with the primary actors for planning and decision making, and they may review reports and projections output by iHRIS Plan.

- The health workforce policy or decision maker*, usually based in a country's Ministry of Health, is the primary stakeholder for iHRIS Plan. Health workforce planners using the software will present projections, provide reports and analyze the results for the decision makers, who will then make health workforce policy and planning decisions based on the data and analysis they have received.
- The Ministry of Finance* is responsible for health workforce budgets, which impact planning. iHRIS Plan will project costs for staffing and training projections, which will need to be presented to Ministry of Finance stakeholders and incorporated into national budgets.
- The Ministry of Education* is generally responsible for pre-service training, which impacts the supply of health workers. iHRIS Plan will project training needs, which will need to be presented to Ministry of Education stakeholders and incorporated into training recruitment plans.
- Health workers and the professional associations* that represent them are interested in ensuring that projections are accurate and benefit their profession.
- District governments* are interested in how projections impact staffing within their districts. They may want to use future versions of iHRIS Plan to plan for human resource needs at the district level.
- Health facility managers* are interested in how projections impact staffing at their facilities. They may want to use future versions of iHRIS Plan to plan for human resource needs at their facilities.
- The press* represents and communicates health policy information to the general public. They will need to receive simple presentations of health workforce projections and analysis for reporting.

- h) *Capacity Project/IntraHealth* is the software developer whose primary objective is developing functional, user-friendly software for human resources planning that achieves effective results.
- i) *USAID/Washington* is the funder of the Capacity Project whose primary objective is improving human capacity to implement quality health programs in the developing world.

Workforce Planning Model

iHRIS Plan is intended to support and provide an interface to a standard, internationally accepted model for workforce planning. Initial iterations of the software will adopt the WHO HRH Projection Model, as recommended by an advisory group of health workforce planning experts at the HRH Workforce Planning Workshop held by the Capacity Project in December 2007. The first iteration will use a simplified version of the model, with the goal of enabling users to quickly enter data and produce projections. Subsequent iterations will introduce more complexity to the modeling. The software will also provide extensive help with understanding the concepts behind the model, the meaning of different data inputs and how to make assumptions when projecting requirements or modeling interventions. Later versions of iHRIS Plan may be extensible to other workforce planning models.

Constraints

iHRIS Plan is initially intended to model projections at the national level, although future iterations may support facility, district and regional workforce planning. iHRIS Plan is primarily intended to produce detailed health workforce implementation plans for the short term only (3 to 5 years), but may also be used to produce longer-term estimates or project major trends.

iHRIS Plan is initially intended to model projections for the public sector only and to link projections to costing. Later iterations may include private sector influences. Other factors that will not be considered in initial versions include the impact of out migration, geographical imbalances among districts, the impact of epidemiological changes or needs for targeted services, the impact of demographic changes other than population growth and labor market dynamics. All of these may be addressed in later versions, as prioritized by the health workforce planning experts advising the software development team.

iHRIS Plan is not a human resources information management system and will not store data on individual workers. iHRIS Plan is designed to model one-to-one relationships, such as between employees and positions or facilities, but not one-to-many relationships, such as employee competencies.

Nonfunctional Requirements

iHRIS Plan will be programmed using PHP, JavaScript and a MySQL database. It will be optimized to run on a Web Server running Apache and Linux. The system is managed via a Web browser; to interface with the system, a local network or Internet connection is required. An offline version may be produced in a later iteration.

The following features will ensure security and accuracy of data stored in the system:

- password-protected logins to allow only authorized users to access the data
- role-based user accounts; non-authorized user actions and datasets are hidden from the user
- automated logging of the username, date and time when data are entered or changed for auditing purposes
- logging of the source of data entered

iHRIS Plan will be extensible to the Capacity Project's other iHRIS products, iHRIS Qualify and iHRIS Manage. iHRIS Plan may be extensible to additional modules to be developed either by the Capacity Project or by the user.