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# HEALTH PROFESSIONS INITIATIVE Health Professions Workforce Database Lessons Learned

The Colorado Trust's Health Professions Initiative, a three-year (2005-2008), \$10.2 million effort, provides funding for programs that are working to increase the number of trained health professionals in Colorado. As part of this initiative, The Colorado Health Institute (CHI) is designing and creating the Health Professions Workforce Database, which will help to inform policymakers and the public about health professional workforce issues.

CHI is developing a series of publicly accessible databases that consist of profession-specific survey data and health professions data from existing sources. When complete, the databases will provide a robust set of health professions workforce indicators for Colorado. These indicators will supply information concerning changes in Colorado's health care workforce supply, demand and practice patterns over time. The database project is a cooperative endeavor between CHI and representatives of the health professions, including those from nursing, medicine, dentistry, pharmacy, mental health and allied health.

## **DATA NEEDS**

A fundamental lesson that CHI has learned is the importance of listening to the health professions community to understand what data are needed to best inform policymakers and enable them to develop education, recruitment and retention strategies. In particular, CHI is learning which types of data are most useful in developing approaches to strengthen the health profession workforce in rural and underserved areas.

Through ongoing discussions with representatives from the health professions, an agreed-upon set of common data needs has evolved. Some of the data elements needed to better inform workforce policymaking and strategies include:

- Education Identification of education institutions at which Colorado health professionals are trained, highest degree attained, incentives for pursuing advanced degrees, use of loan repayment programs and participation in continuing education after degree completion.
- Practice Patterns Types of positions health professionals hold, practice settings, number of hours worked, percentage of time working in direct patient care, level of income and acceptance of Medicaid and Medicare reimbursement.
- **Professional Life Span/Retention** Length of time professionals remain in the health care workforce, whether professionals are working in direct patient care roles and reasons for working in non-patient care roles.
- **Demographics** Professionals' age, ethnicity, languages fluently spoken and if "home grown" (e.g., grew up in rural community).

## QUESTIONNAIRE DEVELOPMENT

To date, CHI has conducted surveys of Colorado licensed physicians, registered nurses, pharmacists, certified nurse aides, dentists and dental hygienists. Through this process, CHI has learned that it is imperative that representatives of the health professions are actively involved in the development of the survey questions and survey format. This involvement improves the likelihood that the survey questions reflect the profession's data needs and increases the support of the profession for the survey process.

# QUESTIONNAIRE MAILING

CHI realizes the importance of conducting mail surveys in which personalized letters are sent to potential respondents with the survey questionnaire, and the questionnaire is coded enabling the tracking of non-respondents. Follow-up mailings to non-respondents are sent in order to increase the response rate. The ability to track and analyze characteristics of survey non-responders compared to responders permits more detailed survey findings.

# **DATA ENTRY**

After receipt of the survey forms, information from the forms is entered into a database program. Data verification and cleaning are carried out with a series of quality checks to ensure data completeness and adherence to formatting protocols. For CHI's purposes, a manual data entry program (e.g., Microsoft Access) is highly superior to a scanning data entry program. Manual data entry has resulted in greater accuracy and fewer data omissions compared to the scanning program. Manual data entry also enables CHI to capture the richness of qualitative information that is otherwise omitted.

### CONFIDENTIALITY

Preserving the survey respondents' confidentiality has been the mainstay of the Health Professions Workforce Database project. It is imperative that the survey form and the accompanying letter both explain that participation in the survey is voluntary and that the information provided is confidential. Throughout the survey mailing and data entry processes each respondent's name and corresponding code number is protected. In order to maintain respondent confidentiality, responses to questions are publicly reported in aggregate only and no individual information is released. In reporting results in CHI's public use files, respondent confidentially is further protected by providing certain data elements, such as age and income, in grouped ranges.

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