

**National Health Service Corps
Chiropractic and Pharmacy Loan Repayment
Demonstration Project**

SUPPORTING STATEMENT- PART A

1. JUSTIFICATION

CIRCUMSTANCES OF INFORMATION COLLECTION.

The Health Resources and Services Administration (HRSA) is submitting a request for approval to conduct three surveys:

1. a self-administered survey of adults who use community health clinics staffed with professionals serving obligations through the National Health Service Corps (NHSC),
2. a self-administered mail survey of medical directors of these clinics, and
3. a telephone survey of chiropractic doctors and pharmacists serving NHSC obligations.

These surveys are an integral part of an evaluation of the demonstration to include chiropractic doctors and pharmacists in the NHSC loan repayment program as congressionally mandated by Public Law 107-251 (Appendix A). The Senate Appropriations Committee restated congressional interest in evaluating the demonstration in Senate Report Number 108-345.¹ The surveys will be the primary source of information for the evaluation and will be complemented by case studies of six demonstration sites.

National Health Service Corps- Over the past 30 years, NHSC has used scholarships and loan repayment awards to help underserved areas recruit more than 24,500 health professionals. The loan repayment program helps newly trained physicians, physician assistants, nurse practitioners, certified nurse midwives, dentists, dental hygienists, and mental health professionals pay their education loans if they agree to serve a year or more in an area experiencing a shortage of health professionals. As of September 30, 2004, nearly 4,000 health professionals were fulfilling NHSC service obligations.

In 2002, Congress passed Public Law 107-251, which established a demonstration project for the participation of chiropractic doctors and pharmacists in the NHSC loan repayment program. The demonstration began in September 2003 when 8 chiropractic doctors and 24 pharmacists started serving two-year obligations. Since that time, one chiropractic doctor and one pharmacist have left the demonstration and 30 professionals completed their two-year obligations.

2. Purpose and Use of Information Collection

The three surveys will be used to collect the information necessary to conduct the evaluation of the demonstration.

¹ U.S. Senate Appropriations Committee. "Evaluation of the Demonstration to Include Chiropractic Doctors and Pharmacists in the NHSC Loan Repayment Program." Senate Report 108-345.

Overall Evaluation- The evaluation, sponsored by the U.S. Department of Health and Human Services, HRSA, will increase policymakers' knowledge of the effects of including chiropractic doctors and pharmacists in the NHSC loan repayment program. In addition, the evaluation will provide important information about the feasibility of including these professionals in the NHSC loan repayment program on a permanent basis.

Evaluation Goals- Public Law 107-251 specified that the demonstration be evaluated and that the results of the evaluation be reported to Congress. The law specifies that the evaluation study:

- “(A) the manner in which the demonstration project ... has affected access to primary care services, patient satisfaction, quality of care, and health care services provided for traditionally underserved populations;
- (B) how the participation of chiropractic doctors and pharmacists in the Loan Repayment Program might affect the designation of health professional shortage areas; and
- (C) whether adding chiropractic doctors and pharmacists as permanent members of the National Health Service Corps would be feasible and would enhance the effectiveness of the National Health Service Corps.”

Because chiropractic doctors and pharmacists provide vastly different services, analyses of these three research topics will be conducted separately by type of clinician.

Evaluation Components- To address the first evaluation component—how the demonstration affected access, satisfaction, quality of care, and health care services—we will conduct (1) qualitative analyses of information collected from clinic users, medical directors, and the chiropractic doctors and pharmacists who received NHSC loan repayment awards and (2) quantitative analyses of information collected from clinic users. The qualitative analyses will focus on describing the types of services provided by the chiropractic doctors and pharmacists, and the quantitative analyses will test for statistically significant differences in outcomes between clinics that have either a chiropractic doctor or pharmacist serving an NHSC obligation (demonstration clinics) and clinics that have other types of health care professionals serving NHSC obligations (comparison clinics).

Our approach to addressing the second and third evaluation components—how the demonstration affects the designation of Health Professional Shortage Areas (HPSAs) and the feasibility of including chiropractic doctors and pharmacists as permanent members of the NHSC—will primarily rely on qualitative analyses of data collected from medical directors of the demonstration and comparison clinics and the chiropractic doctors and pharmacists who received NHSC loan repayment awards. In these analyses, we will describe the role of chiropractic doctors and pharmacists in the process of care; medical directors' reports of how the chiropractic doctors and pharmacists have affected the provision of primary care services and the stability of clinic staff; community-level unmet need for primary care, chiropractic, and pharmacy services; recruitment and retention of chiropractic doctors and pharmacists; and the motivations of chiropractic doctors and pharmacists to work in underserved areas.

Analyses of survey data will be supplemented with two other types of analyses: (1) analyses of data from the Uniform Data System (UDS) and (2) six in-depth case studies. The UDS is a

reporting system used by health care providers who receive grant funding from the Bureau of Primary Health Care (BPHC) within HRSA. Providers who do not receive funding from BPHC but have NHSC clinicians on staff have a voluntary reporting system that is designed to mirror the UDS. The UDS collects basic information about providers including the volume of services provided by type, size and composition of clinical staff, and basic demographic information on populations served. Analyses of these data will focus on comparing the volume of primary care services between demonstration and comparison sites before and after the beginning of the demonstration. The other supplemental analysis will be in-depth case studies done at six clinics that have either a chiropractic doctor or pharmacist serving an NHSC obligation through the demonstration. These case studies will be designed to provide rich contextual and anecdotal information for the analyses of survey and UDS data.

Survey of Clinic Users- The survey of clinic users will be conducted at 60 clinics, located in 22 states. The 60 clinics will include 5 clinics that have an NHSC chiropractic doctor and 15 clinics that have an NHSC pharmacist. The other 40 sites will be matched comparison sites; two comparison sites will be selected for each demonstration site. Selection of comparison sites will be based on local and clinic characteristics, including regional characteristics (such as state and rural-urban classification of county), HPSA score, number of clinic users, and size of clinic staff. The criteria for the pharmacist sites will also include types of pharmacy services provided and number of registered pharmacists on staff in 2003 when the demonstration began.

The 15-minute survey, administered in hard copy, will contain time recall periods of no more than six months. The survey will include three broad topic areas (Appendix B presents both versions of the survey instrument):

1. health care experiences at the clinic, such as access, quality, satisfaction, and use of the clinic's primary care services;
2. experiences obtaining treatment for neck and back pain or pharmacy services at the clinic²; and
3. demographic information.

The second topic area will differ between chiropractic doctor demonstration and comparison clinics and pharmacist demonstration and comparison clinics.

Survey of Clinic Medical Directors- The survey of clinic medical directors will be conducted at each of the 60 clinic sites where the clinic user survey is conducted. The 30-minute survey, administered by mail in hard copy, will contain time recall periods back to the start of the demonstration.

The survey instrument will include eight broad topic areas (Appendix C contains a copy of the cover letter and both versions of the survey):

1. clinic characteristics,

² The assessment of outcomes related to chiropractic care will focus on the treatment of neck and back pain. Chiropractors are considered to be neuromusculoskeletal system specialists, and they commonly treat neck and back pain related to musculoskeletal conditions.

2. clinic staffing and job openings,
3. neck and back pain treatment or pharmacy services provided by the clinic,
4. process of care,
5. recruitment and retention of clinical staff,
6. unmet need for primary, chiropractic, and pharmacy services within the community,
7. impacts associated with the NHSC chiropractic doctor or pharmacist, and
8. personal background.

The third topic area will differ between chiropractic doctor and pharmacist demonstration and comparison sites. The section on impacts associated with the NHSC chiropractic doctor or pharmacist will apply only to demonstration sites.

Survey of Chiropractic Doctors and Pharmacists Participating in the Demonstration- The survey of chiropractic doctors and pharmacists will be administered to all clinicians who received a loan repayment award through the demonstration. The 30-minute survey will be administered by telephone and will contain time recall periods back to the start of the demonstration, which was September 2003.

The survey instrument will include six broad topic areas (Appendix D contains a cover letter and the survey instruments):

1. scope of services,
2. contributions to the clinic,
3. role in the clinic's process of care,
4. recruitment and retention,
5. satisfaction, and
6. background and demographic information.

Within each topic, the questions will differ between chiropractic doctors and pharmacists.

3. Use of Improved Information Technology and Burden Reduction

We plan three surveys to achieve the research objectives: (1) a survey of clinic users, (2) a survey of clinic medical directors, and (3) a survey of chiropractic doctors and pharmacists serving NHSC obligations.

Survey of Clinic Users- The survey of clinic users will be distributed by clinic staff to a sample of clinic users, according to sampling instructions provided by Mathematica Policy

Research, Inc. (MPR), the evaluation research contractor. Computer-assisted telephone interviewing (CATI) methods were not believed to be appropriate for the scope and content of this effort. The survey instrument is brief, has few skip patterns, and has been designed to be scanned by Questar, a vendor that provides high-speed optical scanning services. Questar processes all image scan surveys through an intelligent character recognition system from Captiva Software, one of the oldest and largest forms processing software companies in the United States. Scanning will reduce costs and save time compared with data entry.

Survey of Clinic Medical Directors- The survey of clinic medical directors will be conducted using a self-administered questionnaire mailed to survey respondents. Given the small sample, it was not considered cost-effective to use CATI methods or an Internet-based survey. Data from this survey will be entered using Viking data entry software on the SUN Ultra Enterprise 2. The data entry program will contain logic, range, and consistency checks. Data errors will be reviewed and resolved during cleaning and will be 100 percent verified.

Survey of Chiropractic Doctors and Pharmacists Participating in the Demonstration- The survey of chiropractic doctors and pharmacists will be conducted by telephone. This survey is designed to obtain qualitative information and has several open-ended questions. The data collected will be transcribed into electronic files, which will be coded and analyzed using software, such as Atlas.ti, specifically designed for qualitative analyses of text information.

4. Efforts to Identify Duplication and Use of Similar Information

The information that will be collected will be unique to the demonstration. It is not available elsewhere.

5. Impact on Small Businesses or Other Small Entities

This data collection effort will not have a significant impact on small entities.

6. Consequences if Information Collected Less Frequently

This is a one-time study to evaluate a congressionally mandated demonstration to assess the effects and feasibility of including chiropractic doctors and pharmacists in the NHSC loan repayment program. Without this information, it will not be possible to conduct the evaluation.

7. Special Circumstances Relating to the Guidelines in 5 CFR 1320.5(d)(2)

The information collection is consistent with 5 CFR 1320.5(d)(2).

8. Consultation Outside the Agency

The notice required in 5 CFR 1320.8(d) was published in the *Federal Register* on September 26, 2005 (Vol. 70, No 185), see Appendix E. No comments from the public were received.

MPR has provided input into the study. Senior technical staffs from MPR who have furnished assistance are:

Carol Irvin (617) 491-7900, ext. 232

Richard Strouse (609) 275-2332

| | |
|-----------------|--------------------------|
| Frank Potter | (609) 936-2799 |
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| Randall Brown | (609) 275-2393 |
| Bob Schmitz | (617) 491-7900, ext. 236 |

9. Explanation of Any Payment or Gift to Respondents

Respondents will not be remunerated.

10. Assurance of Confidentiality Provided to Respondents

All respondents will be assured that their individual responses will be treated confidentially. Data will be tabulated and presented in aggregate form. Responses will not be linked to individual programs or persons. Further, no respondent identifiers will be included in any public use files made available from the study. These assurances will be made clear in an advance letter to sampled entities and in any subsequent study-related communication.

11. Justification for Sensitive Questions

There are no questions of a sensitive nature.

12. Estimates of Annualized Hours and Costs

a. Response Burden

Table A.1 presents estimates of respondent burden. Because this is a one-time data collection effort, “annual time” is merely the time taken to provide information once. Time required to complete the form was estimated from review of the survey instruments.

Table A.1 Response Burden

| Respondent Type | Number of Respondents | Responses per Respondent | Hours per Response | Total Response Burden (Hours) | Wage Rate | Total Hour Cost |
|--------------------------|-----------------------|--------------------------|--------------------|-------------------------------|-----------|-----------------|
| Clinic Users | 2,000 | 1 | .25 | 500.0 | \$5.15 | \$2,575 |
| Clinic Medical Directors | 60 | 1 | .50 | 30.0 | \$66.19 | \$1,986 |

Chiropractic Doctors and Pharmacists

| | | | | | | |
|----------------------|------|---|-----|------|---------|--------|
| Chiropractic Doctors | 7 | 1 | .50 | 3.5 | \$32.02 | \$112 |
| Pharmacists | 23 | 1 | .50 | 11.5 | \$39.67 | \$456 |
| Total | 2090 | | | 545 | | \$5129 |

B. Cost to Respondents for the Hour Burdens

Survey of Clinic Users- Because NHSC clinicians serve at community health centers in areas experiencing shortages of health professionals, we anticipate that low-income adults will complete the survey of clinic users. They will either have no insurance or be eligible for Medicaid benefits. To estimate the burden of this survey, we used the current federal minimum wage of \$5.15 per hour. The estimated cost to respondents is 500 hours x \$5.15, or \$2,575.

Survey of Clinic Medical Directors- Medical directors of community health centers are typically primary care physicians with training in family and general practice, internal medicine, or pediatrics. Using the median hourly wage of family and general practitioners of \$66.19 for this position (taken from the November 2003 National Occupational Employment and Wage Estimates for Healthcare Practitioner and Technical Occupations, available on the web from the Bureau of Labor Statistics at www.bls.gov/oes/current/oes_29he.htm), the estimated cost to respondents is 30 hours x \$66.19, or \$1,986.

Survey of Chiropractic Doctors and Pharmacists Participating in the Demonstration- Using the median hourly wage of chiropractic doctors of \$32.02 and the median hourly wage of pharmacists of \$39.67 (taken from the November 2003 National Occupational Employment and Wage Estimates for Healthcare Practitioner and Technical Occupations, available on the web from the Bureau of Labor Statistics at www.bls.gov/oes/current/oes_29he.htm), the estimated cost to respondents is (3.5 hours x \$32.02) + (11.5 hours x \$39.67), or \$568.28.

13. Estimate of Other Total Annual Cost Burdens to Respondents or Record Keepers

There are no capital or start-up costs or operational or maintenance costs to the respondents, other than their time, to participate in the study.

14. Estimates of Annualized Cost to the Government

The estimated cost to the federal government of the entire evaluation is \$494,700 over a period of 24 months (from October 2004 through September 2006). These costs include the contractor's costs for labor, other direct costs, and indirect costs. Of this amount, approximately \$234,000 is for designing, conducting, tabulating, and analyzing the surveys for which clearance is requested. The balance of the costs is for designing the overall evaluation, identifying and

recruiting sites for the surveys of clinic users and medical directors, meetings of an expert panel, and site visits to six demonstration sites.

15. Explanation for Program Changes or Adjustments

This is a new data collection.

16. Project Time Schedule and Analysis Plans

16.1 Project Schedule

Once OMB approval is obtained, data collection will begin approximately one month later for a five month period. The tabulation/analyses phase is estimated to take two months with the final report submitted at the end of that two month period.

16.2 Analysis Plans

In 2002, Congress passed Public Law 107-251, which established a demonstration project for the participation of chiropractic doctors and pharmacists in the NHSC loan repayment program. In addition, it specified that the demonstration be evaluated and the results presented to Congress. The demonstration began in September 2003 when 8 chiropractic doctors and 24 pharmacists began serving two-year obligations at clinics in underserved areas in 22 states.³ The chiropractic doctors and pharmacists have the option of applying for a one-year extension of their obligation.

The analytic approach of the evaluation focuses on assessing the three research issues set forth by Public Law 107-251. Congress requested that the evaluation of this demonstration study:

- “(A) the manner in which the demonstration project ... has affected access to primary care services, patient satisfaction, quality of care, and health care services provided for traditionally underserved populations;
- (B) How the participation of chiropractic doctors and pharmacists in the Loan Repayment Program might affect the designation of health professional shortage areas; and
- (C) Whether adding chiropractic doctors and pharmacists as permanent members of the National Health Service Corps would be feasible and would enhance the effectiveness of the National Health Service Corps.”

The findings of the evaluation will be summarized in a Report to Congress. This report will describe the demonstration and present an assessment of each research issue. In addition to the analyses described below, the report will include an executive summary of findings and an appendix of site visit reports.

Description of the Demonstration- The first chapter of the Report to Congress will develop a clear understanding of the demonstration and provide a context in which to interpret the evaluation findings. The primary information source for this description will come from the

³ Since the beginning of the demonstration, one chiropractic doctor and one pharmacist has left the demonstration program.

survey of chiropractic doctors and pharmacists serving obligations through the demonstration. The description will include:

- contributions made to the clinics;
- productivity measures of the chiropractic doctors and pharmacists, such as the average number of patients seen or prescriptions dispensed during an average week; and
- the role of the NHSC loan repayment award in their decision to work in an underserved area.

Information obtained from medical directors of the demonstration and comparison clinics and UDS data will be used to describe the clinics where the chiropractic doctors and pharmacists served their NHSC obligations. These descriptions will include:

- geographic distribution of the clinics;
- ownership structures; and
- size of networks and clinics, including number of clinical staff and patients served.

Assessment of Outcomes- The analytical approach to the first research question—the manner in which the demonstration affected access, patient satisfaction, quality of care, and service utilization—will use qualitative analyses of information provided by all three surveys and quantitative analyses of outcomes, as reported in the survey of clinic users, and service volume, as reported in the UDS data.

The qualitative analyses will include two types of tabulations designed to provide a context for understanding the quantitative analyses of outcomes:

1. Tabulations that describe the types of services the participating chiropractic doctors and pharmacists provided, as reported by these health professionals.
2. Cross-tabulations of clinic characteristics (as reported by clinic medical directors) designed to compare demonstration and comparison clinics in size, number of NHSC clinicians on staff, types of neck and back pain treatment and pharmacy services available, and the process of care.⁴

The last set of tabulations will be designed to compare demonstration and comparison clinics and provide a context in which to understand the quantitative analyses of outcomes.

Quantitative analyses of outcomes will rely on regression analyses that compare outcomes at demonstration clinics to the same outcomes at comparison clinics controlling for characteristics of clinics and clinic users. The outcome analyses will assess primary care services more generally (such as access to advice or timely appointments) and neck and back pain treatment or pharmacy services, which are primary care services as well. Table A.2 illustrates how these concepts are operationalized in the survey of clinic users.

⁴ Process of care measures will include (1) the frequency chiropractic doctors and pharmacists co-manage patients with physicians, (2) referral patterns, and (3) the prevalence of interdisciplinary care teams that include chiropractic doctors and pharmacists.

Table A.2 Outcome Measures from the Survey of Clinic Users

| Category of Outcomes | Neck and Back Pain | | |
|----------------------|--|--|---|
| | Primary Care Services | Treatment Services | Pharmacy Services |
| Access | Frequency of receipt of needed help or advice | A chiropractic doctor provided treatment for neck or back pain | Whether filling a prescription medication at the clinic has been a problem in the last six months |
| | Frequency of timely appointments | Frequency of timely appointments for the treatment of neck or back pain | Convenience of the clinic: Convenient hours of operation Distance to the clinic's pharmacy Waiting times at the pharmacy |
| | Frequency waited more than 15 minutes before taken to exam room | | |
| Patient Satisfaction | User ratings of health care received at the clinic | User ratings of neck and back pain treatment services at the clinic | User ratings of pharmacy services at the clinic |
| | | Out-of-pocket costs for chiropractic services | Out-of-pocket costs for prescription medications |
| Quality of Care | Frequency clinic staff: -listened carefully -explained things in | Frequency of recommendations for home treatment of neck and back pain (overall | Compliance with instructions: Frequency of skipping a |

| | | | |
|---------------------|--|--|--|
| | an understandable manner -spent enough time with user | and by type of treatment) | dose or taking less than instructed |
| | | Use of medication for pain | Frequency clinic staff clearly explained how to take medications |
| | | User ratings of treatment's relief of pain | Staff helpful with side effects |
| | | | Receipt of sample medications |
| Service Utilization | Number of visits in last six months | Number of chiropractic visits in last six months | Number of prescriptions filled in last six months |
| | | Received treatment for neck or back pain at a location other than the clinic | Received prescriptions at a location other than the clinic |

We will supplement analyses of survey data with analyses of service volume data from the UDS, total number of encounters during the year, number of encounters per user, and number of encounters per physician. The analyses of UDS data will focus on the difference in service volume between demonstration and comparison sites before the demonstration began and compare this difference to the difference in volume after the demonstration began.

Assessment of the Effects on HPSA Designations- The analysis of how the demonstration affects the designation of HPSAs will rely on qualitative research methods and information from the survey of chiropractic doctors and pharmacists and the survey of clinic medical directors. The analysis will include three components.

1. Process of Care- The analysis will assess the chiropractic doctor's and pharmacist's role in the process of care. Specifically, these analyses will compare and contrast the prevalence of chiropractic doctors and pharmacists working directly with physicians,

either to co-manage patient care or in interdisciplinary care teams, between demonstration and comparison clinics.

2. Effects on Outcomes- In addition, the analysis will include an assessment of the effects of the chiropractic doctor and pharmacist on the clinic's provision of primary care services, as reported by the medical directors at the demonstration clinics. The focus will be on effects on access to neck and back pain treatment and pharmacy services, patient satisfaction, quality of care, costs of care, and utilization patterns.
3. Stability of Clinic Staff- This analysis will describe whether increased capacity in chiropractic care or pharmacy services affects a clinic's ability to retain physicians or other types of health professionals, as reported by clinic medical directors.

Feasibility of Including Chiropractic Doctors and Pharmacists in the NHSC Loan Repayment Program- The analysis of the feasibility of including chiropractic doctors and pharmacists as permanent members of the NHSC loan repayment program will use qualitative research methods to assess three aspects of feasibility.

1. Community Needs- This analysis will describe community needs for primary care, chiropractic, and pharmacy services and clinic needs for chiropractic doctors and pharmacists relative to needs for other types of providers, as reported by medical directors.
2. Recruitment and Retention of Chiropractic Doctors and Pharmacists- The analysis will describe the difficulties of recruiting and retaining chiropractic doctors and pharmacists compared to other types of clinicians.
3. Chiropractor and Pharmacist Motivations for Working in Underserved Areas- The assessment will include a description of chiropractic doctors' and pharmacists' motivations for working in underserved areas, how the NHSC loan repayment award affected their decision to work at the clinic, and whether the providers who received an NHSC loan repayment award through the demonstration will continue to serve in underserved areas.

17. Reason(s) Display of OMB Expiration Date is Inappropriate

The OMB expiration date will be displayed.

18. Exceptions to Certification for Paperwork Reduction Act Submissions

The data collection fully complies with guidelines set forth in 5 CFR 1320.9. The required certifications are included in this package.

