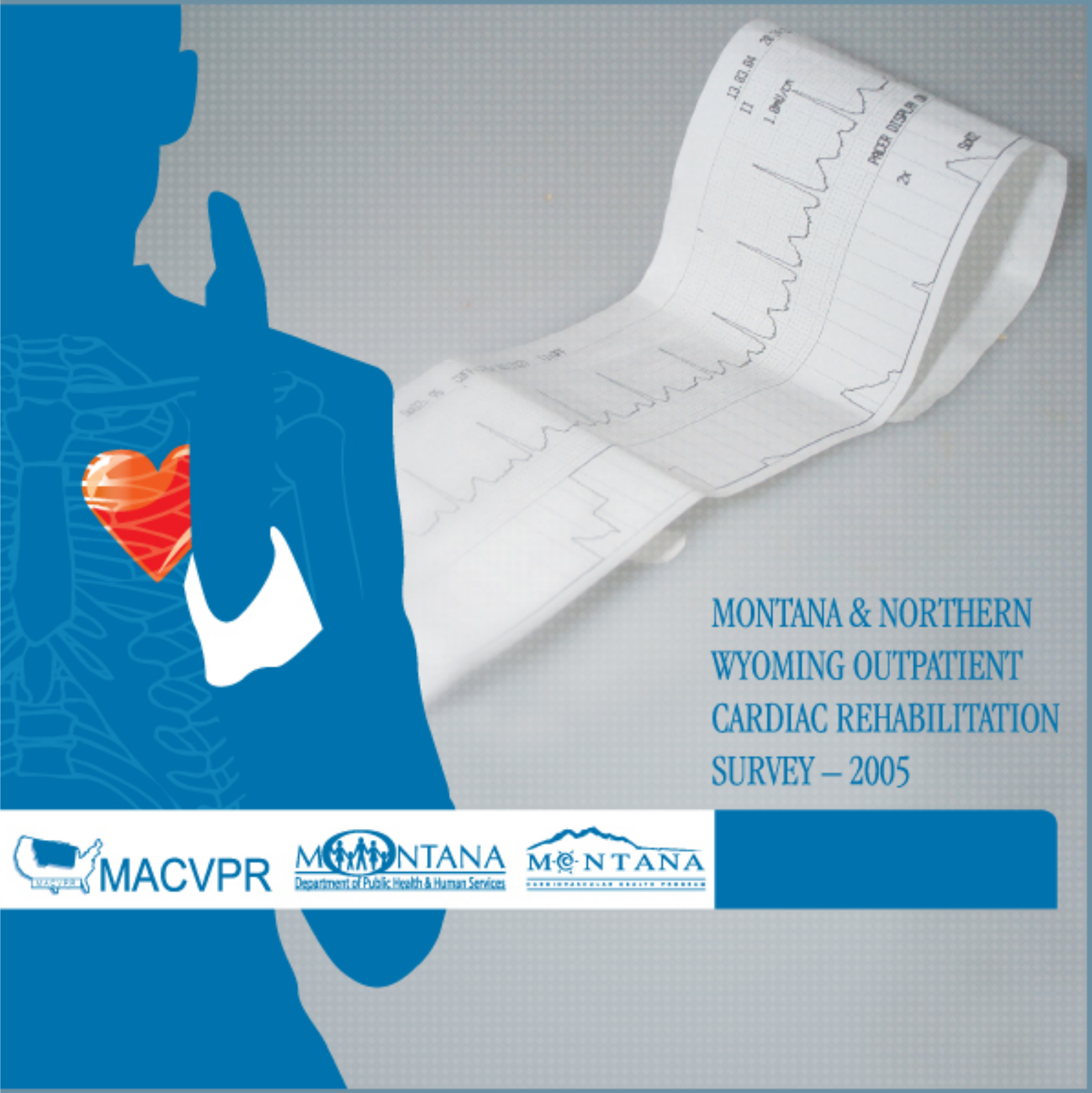


MONTANA & NORTHERN WYOMING OUTPATIENT CARDIAC REHABILITATION SURVEY – 2005

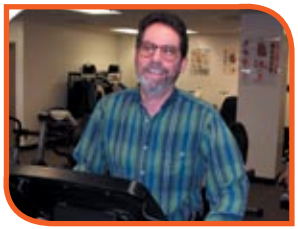
MACVPR

MONTANA Department of Public Health & Human Services

MONTANA

INTRODUCTION

In 2005, the Montana Cardiovascular Health Program partnered with the Montana Association of Cardiovascular and Pulmonary Rehabilitation (MACVPR) to survey the outpatient cardiac rehabilitation (rehab) programs in Montana and northern Wyoming. The goal of the survey was to establish baseline program characteristics and to evaluate the programs' ability and willingness to participate in a statewide outcomes/quality improvement project.



BACKGROUND

Cardiac rehab fills a very unique and important role in the overall care of patients recovering from a cardiovascular event. Cardiac rehab starts in the hospital as an inpatient (Phase I) and consists of low-level ambulation and range of motion exercises mainly geared toward activity of daily living needs. Patient education, including smoking cessation, symptom recognition and medication use, are important components in Phase I cardiac rehab.

After discharge from the hospital, patients are referred by their cardiologist or primary care physician to outpatient cardiac rehab (Phase II). Phase II cardiac rehab emphasizes increasing the patient's functional capacity and reducing the debilitating effects of surgery and/or cardiac event enabling the patient to return to pre-event vocational and recreational activities. Patients exercise in a medically supervised environment with the overall goal of improving quality of life and reducing the risk of future events. Cardiac rehab also provides valuable and important feedback to referring physicians regarding blood pressure control, heart rate response, blood glucose readings, medication compliance, smoking cessation efforts, ECG status and new onset or changes in symptomology.

An important aspect of Phase II cardiac rehab is risk factor education. By providing education related to the nature of cardiovascular disease, medications and the modifiable cardiac risk factors, (i.e., smoking, hyperlipidemia, hypertension, diabetes, obesity and sedentary lifestyle), patients can become active partners in the treatment of their disease. Risk factor education is an important component related to long-term recovery and reducing future morbidity and mortality. In addition to the physical rehabilitation and educational component, psychosocial issues are positively affected by participating in cardiac rehab.

After graduating from Phase II cardiac rehab, patients may have the opportunity to continue in maintenance cardiac rehab (Phase III & IV). This provides ongoing support to the patient by providing a controlled and safe exercise environment as well as ongoing monitoring of their condition.

METHODS

A total of 33 cardiac rehab programs were identified with 25 programs located in Montana and 8 in northern Wyoming. The cardiac rehab programs were divided into programs associated with interventional hospitals (IVH) and non-interventional hospitals (NIVH). An interventional hospital was defined as a hospital that performs percutaneous interventions (PCI) and/or coronary artery bypass grafting (CABG) procedures.

All programs were notified by e-mail that the cardiac rehab survey was forthcoming. The survey consisted of 29 questions related to program description, services and staffing, certifications and quality improvement and the use of the Montana Tobacco Quit Line. The Montana Tobacco Quit Line is a

state sponsored, telephone-based tobacco cessation support program that is offered free of charge to any Montana resident. The survey was mailed to the program manager at each facility. Addresses were obtained from the MACVPR program database.

Data analyses were completed using SPSS V14.0 software (SPSS Inc., Chicago, IL). Chi-square tests were used to compare differences in additional services, American Association of Cardiovascular & Pulmonary Rehabilitation (AACVPR) certification status and quality improvement program status among interventional and non-interventional cardiac rehab programs. T-tests were used to assess differences in staffing and patient load among interventional and non-interventional based cardiac rehab programs.

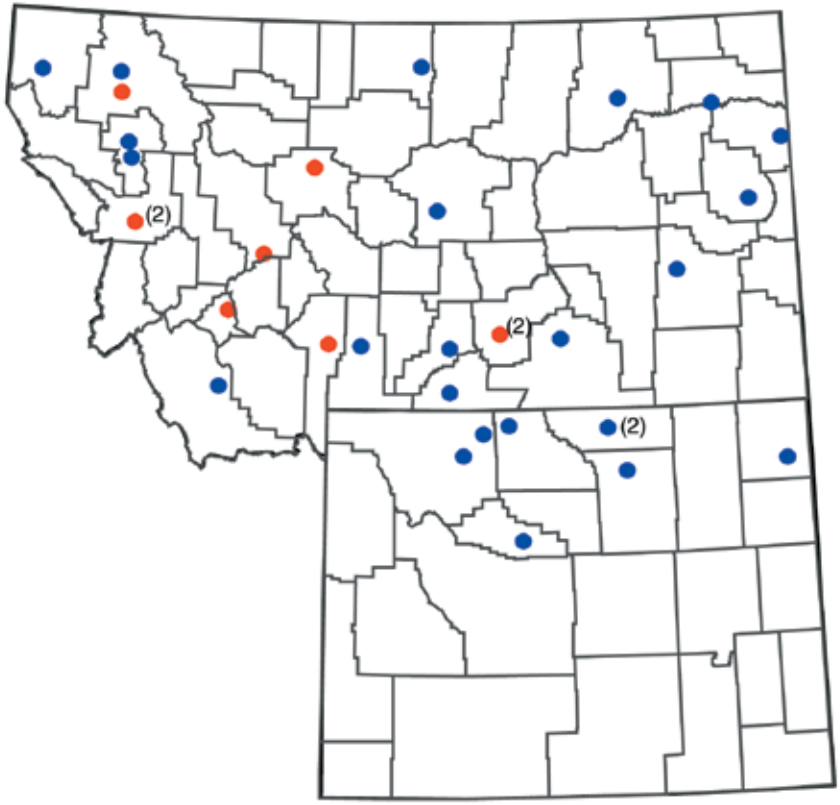
RESULTS

DEMOGRAPHICS

All 33 programs in Montana and northern Wyoming completed the survey. Nine (27%) of the 33 programs were affiliated with IVH, and the remaining 24 were affiliated in NIVH. (Figure 1) Twenty-nine (88%) of the programs were hospital-based, and 3 were classified as freestanding or had off-hospital campus locations. One program had 2 sites, qualifying it as both a hospital-based and freestanding facility.

Figure 1

Location of cardiac rehabilitation programs, by type of program, Montana and northern Wyoming, 2005



Non-Interventional hospital

Interventional hospital

STAFFING AND SERVICES

The staff make-up for all programs consisted primarily of nurses and exercise physiologists with a limited number of physical therapists, respiratory therapists, techs and aides. The average number of full-time equivalents (FTE) in IVH was significantly greater than in NIVH (2.4 vs. 1.02). (Figure 2) The programs associated with IVH were significantly more likely to provide pulmonary rehabilitation and heart failure programs compared to NIVH. Compared to NIVH-based programs, IVH programs were more likely to provide wellness and diabetes programs; however, this did not reach statistical significance. (Figure 3)

Figure 2

Average number of full time equivalents and type of cardiac rehabilitation staff, by type of program, Montana and northern Wyoming, 2005.

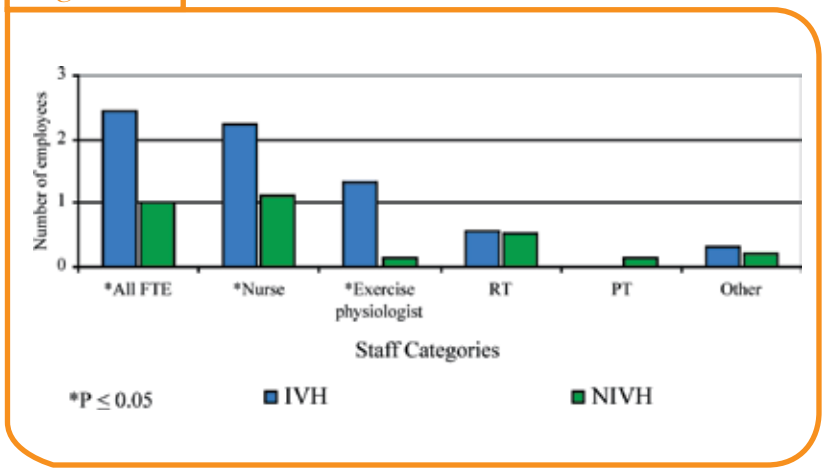
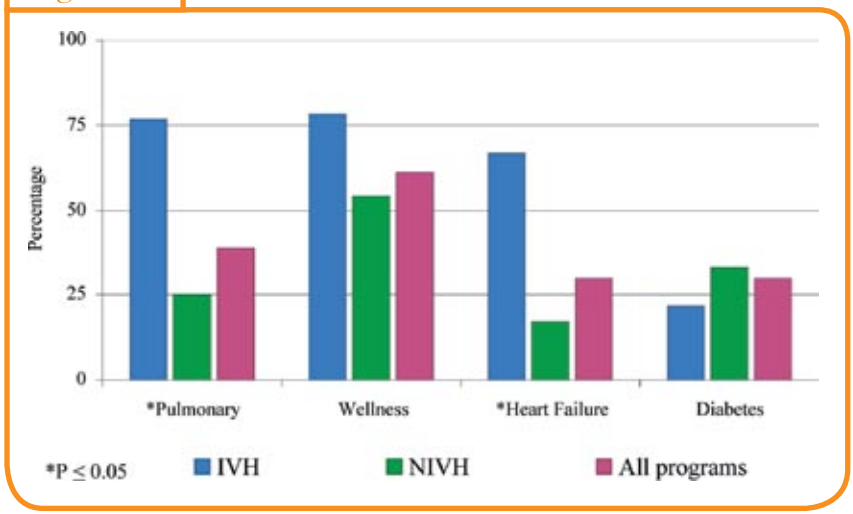


Figure 3

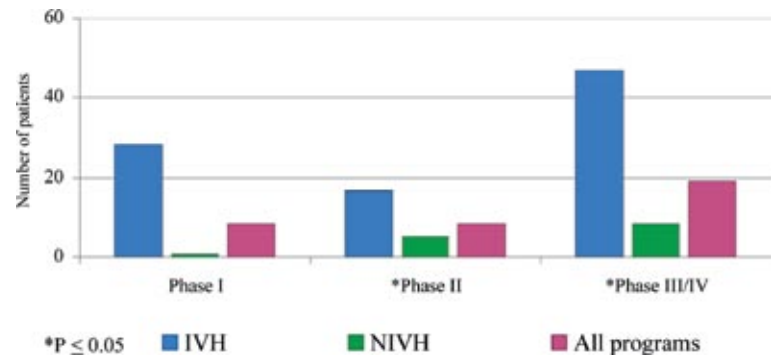
Additional services provided by cardiac rehabilitation programs, by type of program, Montana and northern Wyoming, 2005.



As expected, programs affiliated with IVH served a greater number of patients. Phase I programs associated with IVH reported an average of 28 patients per month compared to just 1 patient per month in programs associated with NIVH. Similar trends were noted in both Phase II and Phase III/IV programs (Phase II: 17 vs. 5 and Phase III/IV: 47 vs. 8). (Figure 4)

Figure 4

Average number of patients per month, by phase and by type of program, Montana and northern Wyoming, 2005.

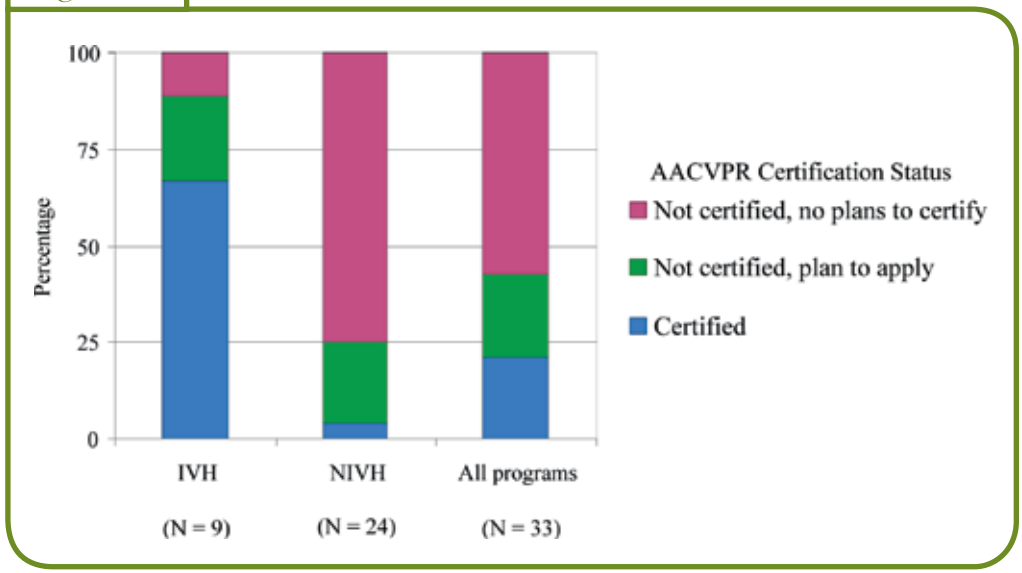


CERTIFICATION AND QUALITY IMPROVEMENT

A total of 7 (21%) programs, 6 IVH and 1 NIVH, had achieved AACVPR program certification. Seven of the remaining 26 (27%) programs, 2 IVH and 5 NIVH, have plans to apply for AACVPR program certification within the next 2 years. (Figure 5)

Figure 5

AACVPR certification status of cardiac rehabilitation programs, by program type, Montana and northern Wyoming, 2005.

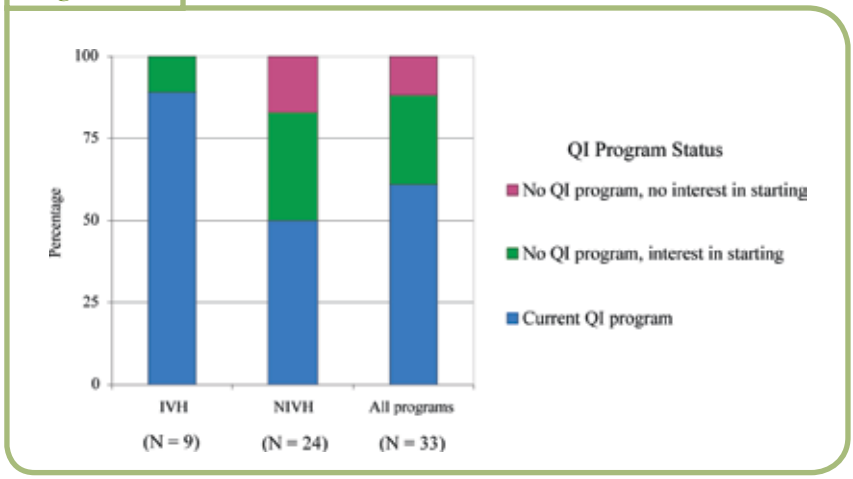


Twenty of 33 (61%) programs, 8 IVH and 12 NIVH, are currently involved in an internal quality improvement (QI) program. Of the remaining 13 programs without an internal QI program, 9 (67%), 1 IVH and 8 NIVH, expressed interest in starting a QI program.

(Figure 6) Twenty-two of the 25 (88%) cardiac rehab programs located in Montana expressed interest in participating in a statewide outcomes/quality improvement project.

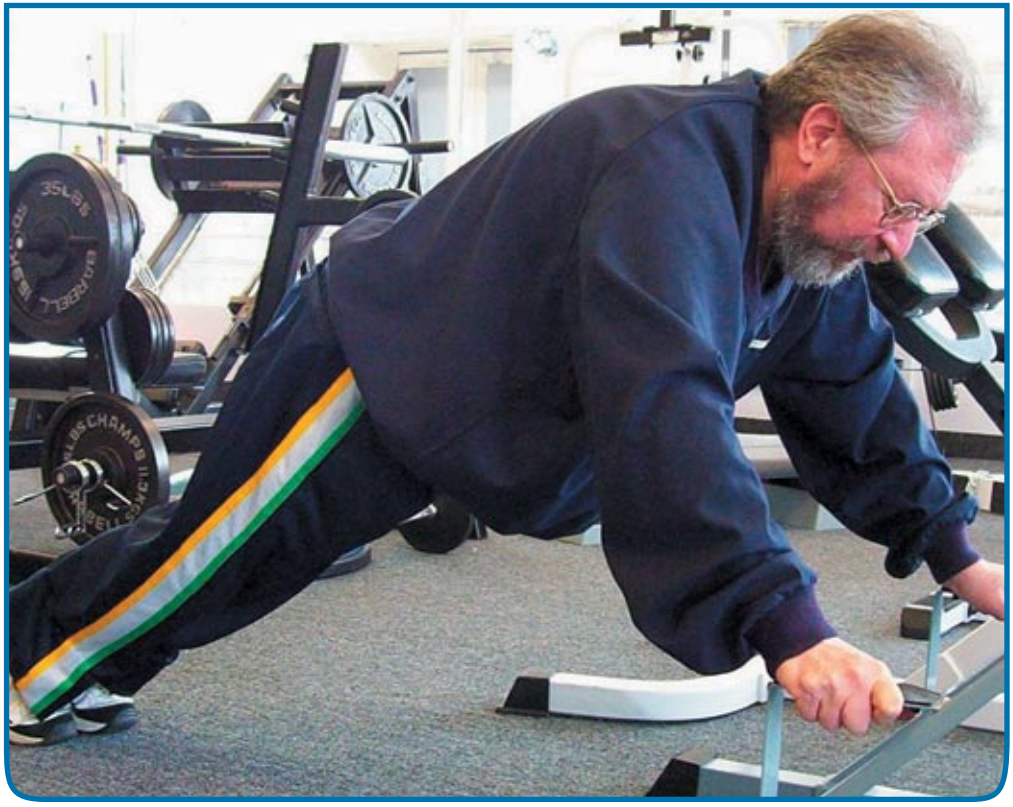
Figure 6

Status of Quality Improvement program, by program type, Montana and northern Wyoming, 2005.



MONTANA QUIT LINE

Twenty (80%) of the 25 Montana-based cardiac rehab programs refer patients to the Quit Line. Thirteen (52%) programs, including the 5 programs not currently referring to the Quit Line, requested brochures and additional materials promoting the Quit Line.



SUMMARY

Cardiac rehab programs in Montana and northern Wyoming vary greatly in size and services offered. The success of each program depends on its ability to adapt to its specific population needs, physical space and FTE limitations. Many programs exhibit a great deal of creativity and work extremely hard to maintain such a vital aspect of continued cardiovascular care and secondary prevention in their communities.

It is encouraging to see the number of programs certified or planning to apply for program certification through AACVPR. In addition the survey revealed a large number of Montana cardiac rehab programs that are either involved with or are interested in starting an outcomes/quality improvement program. Thus, the opportunity to develop a statewide outcomes/quality improvement project is promising.

ACKNOWLEDGEMENTS

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QUESTIONS

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