Final Deliverable

REVIEW AND ANALYSIS OF THE VA'S PACT PROGRAM

Department of Veterans Affairs

October 16, 2002

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I. Executive Summary

The Veteran's Health Administration (VHA) established the Preservation-Amputation Care and Treatment (PACT) Program to provide a coordinated effort within Veterans Affairs Medical Centers (VAMC) to treat patients at risk for limb loss and those who have had an amputation. The PACT Program is a model of at-risk limb care that incorporates multidisciplinary coordination to track patients from entry into the VHA health care system, through all appropriate care levels, and back into the community. It is VHA policy that the PACT Program be established at all VAMCs.

The Veteran's Administration (VA) contracted with Booz Allen Hamilton Inc. (Booz Allen) to perform an evaluation of VA's PACT Program. To conduct an evaluation of the PACT Program, the Booz Allen team required information on the level of implementation of the PACT Directive at each VAMC. An internet survey was developed and administered to determine how facilities implemented the criteria outlined in the PACT Directive. The survey was designed to address the following questions: which aspects of the PACT Directive have been implemented at each VAMC? which services and disciplines are involved in the treatment of patients at-risk for amputation and patients with prior amputations? and are clinical guidelines used in the treatment of patients? Survey results were analyzed and used to rank facilities according to their level of PACT Directive implementation. Literature reviews and staff interviews also provided supplemental information regarding leading practices and PACT Program activities at VAMCs.

There was evidence from both site visits and the internet survey that (1) the PACT Directive has been interpreted inconsistently across VA facilities, (2) facilities have chosen to emphasize different aspects of the PACT directive, (3) facilities have adapted design, measurement, outcomes, and accountability elements to address their local needs, and (4) the coordinator's role has been interpreted and implemented considerably different across facilities. Site visits revealed that treatment of patients at-risk for limb loss and with amputations is implemented using various structures and processes.

Survey results also showed that facilities with a dedicated PACT Coordinator had a higher level of implementation of the PACT guidelines as written in the PACT Directive. There is no direct relationship between the number of years that a PACT Program has been in existence and its level of implementation.

Literature reviews and interviews with industry practioners confirmed that the VHA Directive reflects best practices in the industry by mandating that PACT Programs be interdisciplinary, proactively coordinate care, measure outcomes of care provided to at-risk patients and conduct annual program evaluations.

Booz Allen developed multiple recommendations for VHA to ensure successful implementation and operation of the PACT Program nationwide. These recommendations are related to a functional organizational structure, characteristics of key personnel on the PACT team, training and information dissemination, performance measures, clinical guideline applications, management tools and utilization of an expert multidisciplinary panel.

The recommended functional organizational structure includes a new position, National PACT Lead, to coordinate the PACT Program. Primary and Ambulatory Care Service is recommended to oversee the PACT Program because the program emphasis is preventive in nature. Also, it is important to note that a team structure consisting of PSAS, Podiatry, Primary Care, PM&R, Endocrinology, Vascular and Orthopedic Surgery is involved in the oversight and planning of the PACT Program across the continuum of care.

Training, education, and information dissemination to VA staff is critical to create uniform screening and treatment practices in a decentralized system. VA should utilize several communication mediums to disseminate critical information for those being trained in VAMCs (e.g., satellite training, Internet/Intranet sites, video teleconferencing, CD-ROM training). Use of key management tools can increase collaboration and effectiveness of the PACT Program. The Clinical Reminder Software Package has capabilities that will be of increased value to VA when it is fully and universally implemented. An annual evaluation report should be developed and administered to review the PACT Program nationwide. VA should also conduct a biennial survey of Chiefs of Staff to determine progress of compliance with the Directive, reinforce goals of the program, and identify process barriers and lead practices.

Also, it is strongly recommended that multiple performance measures be used to gauge the performance of the PACT Program. VA should consider convening an expert multidisciplinary panel (consisting of primary care, endocrinology, podiatry, vascular surgery or medicine, nursing, PM&R, PSAS, and social work) to determine optimal system-wide patient satisfaction and clinical outcome measures.

The overall conclusion is that the activities and guidelines presented in the PACT Directive are leading practices in the area of treating patients with amputations and those that are at-risk for limb loss. VHA should continue to develop this Program to encourage interdisciplinary involvement and increase the level of implementation across VAMCs. VHA experiences difficulty in the areas of data collection and data integrity for measuring performance of the PACT Program, Program oversight in a decentralized system, and standardizing the activities associated with treating PACT patients. A new National PACT Lead position and oversight from Primary and Ambulatory Care Services could provide the initial steps toward improving the development and operation of this critical program.

II. Introduction

The Preservation-Amputation Care And Treatment program was established to meet the changing needs of the veteran population

The Preservation-Amputation Care and Treatment (PACT) program was developed in the Veterans Health Administration (VHA) to provide a coordinated effort within medical centers to treat patients at-risk for limb loss and those who have had an amputation. According to the VHA PACT Directive 2001-030, PACT "represents a model of care developed to prevent or delay amputation through proactive early identification of patients who are at-risk for limb loss. The problems encountered by diabetic patients best demonstrate the need for this program."[1] There are currently fewer traumatic amputations within the veteran population and more neuropathic and vascular problems that may lead to amputations.

In 1985, VHA established the Special Teams for Amputation, Mobility, and Prosthetics/Orthotics (STAMP) program, consisting of 8 centers of excellence striving to improve quality and availability of services to patients with amputations. The program was not available at every Veterans Administration Medical Center (VAMC) and focused on rehabilitation, not on prevention. In 1993, the VA's PACT Program was established to build upon the foundation of the STAMP program. To assist each VAMC in establishing a PACT Program at its facility, VHA developed and distributed the PACT Directive expanding the scope of care and treatment to veterans at-risk for limb loss and with amputations.

The Directive provides specific guidance on the care and treatment of veteran patients at-risk of limb loss or with amputations. It is VHA policy that the PACT Program be established at all VAMCs. The PACT Program will be used to provide a model of at-risk limb care that incorporates interdisciplinary coordination of surgeon, rehabilitation physician, therapist, nurse, podiatrist, social worker and primary care, medical, diabetes team and prosthetic and/or orthotic personnel to track every patient with amputations, or those at-risk of limb loss, from day of entry into the VA health care system, through all appropriate care levels, back into the community.

A PACT Program consists of a mix of oversight and administrative management activities, some of which include:

- Assessing the effectiveness of prosthetic delivery and patient satisfaction;
- Dissemination of prosthetic information to local prosthetic services and/or amputee clinic teams;
- Assessing prosthetic training needs of the PACT Program;
- Coordinating the efforts of all medical disciplines required for treatment of patients at-risk of limb loss or amputation;
- Developing local policy memoranda specifically identifying the responsibilities and actions to be taken by each of the involved service (Medical, Surgical, Physical Medicine and Rehabilitation, Podiatry, Nursing, Primary Care, Social Work, and Prosthetic and Sensory Aids) to identify and treat patients at-risk of limb loss or those who are amputees;

1 *VHA DIRECTIVE 2001-030, PRESERVATION-AMPUTATION CARE AND TREATMENT (PACT) PROGRAM, Department of Veterans Affairs, May 11, 2001.*

- Defining local policy and care algorithms to identify and track all patients at-risk of limb loss or amputees from the day of entry into the VA health care system, through all levels of care, until discharged back into the community;
- Evaluating annually the outcomes of the PACT Program, including a review of local facility and network amputation rates for both diabetic and non-diabetic populations; and
- Ensuring that facility screening guidelines regarding universal foot checks and foot screenings are developed and utilized by all clinicians providing principal care to patients at-risk for amputation.

VA contracted with Booz Allen Hamilton to perform the Prosthetics and Sensory Aids Service (PSAS) Phase II program evaluation on special disability populations, which includes evaluating the PACT Program

In this study, VA asked the Booz Allen team to evaluate whether VAMCs with an official PACT Program have different outcomes than VAMCs without a PACT Program. To answer this study question, individual medical centers with and without a PACT Program needed to be identified. The VA project team and the Booz Allen team could not determine from VA sources VAMCs with an official PACT Program because the program was implemented differently across the country. In response to this limitation, the Booz Allen team created a VAMC internet survey to determine how each facility has implemented the criteria outlined in the PACT Directive. The Booz Allen team also performed a literature review and interviewed staff during VAMC onsite visits to identify lead practices in the industry and provide VA with an in-depth understanding of treating patients at-risk for limb loss and those with amputations.

The results of this effort will provide information on the level of implementation of the PACT Directive at each VAMC

The Booz Allen team developed and administered an internet survey at each VAMC focused on the treatment of patients at-risk for amputation and patients who underwent amputations. The survey was designed to address the following research questions.

- To what extent has each VA facility adopted the PACT Directive?
- Which services and disciplines are involved in the treatment of patients at-risk for amputation and patients with prior amputations?
- Which service and discipline primarily coordinate the care of the patients at-risk for amputation and patients with prior amputations across the continuum?
- Are clinical guidelines used in the treatment of patients at-risk for amputation and patients who have had amputations? What areas are covered in these guidelines?

The results of this survey are utilized in the At-Risk for Amputation Study to identify facilities that have well implemented and partially implemented PACT Programs.

III. Methodology

The Booz Allen team conducted a literature review to assist VA with the identification of lead practices

In our literature search, we identified and reviewed representative articles from both the public- and private sectors to identify leading practices in treating patients at-risk for limb loss and patients who have had an amputation. Many of these articles describe studies completed by VA healthcare practitioners. The articles address a variety of subjects including foot care programs, clinical predictors of amputations, and studies of amputations resulting from diabetes mellitus in specific patient populations. The articles reviewed for this study focus on the following areas.

- Multidisciplinary approach to patient care
- Cost of care
- Risk factors for an amputation
- Prevention
- Databases and tracking information

Findings in each of these areas will be discussed in the literature review Findings section.

The Booz Allen team conducted seven site visits to supplement research and survey results

The Booz Allen team gained specific information and an in-depth understanding of the care provided to this patient population. The site visit locations were chosen to represent various services included in the Phase II Program Evaluation.

✓ Atlanta
✓ Hines
✓ Miami
✓ New York
✓ Richmond
✓ Seattle
✓ West Palm Beach

The Booz Allen team interviewed staff members from Prosthetics, Physical Medicine & Rehabilitation, Podiatry, Orthopedic Surgery, Primary Care and other related medical disciplines involved in the coordination of the PACT Program.

We also interviewed staff at private-sector facilities regarding their clinical practices for treating patients at-risk for amputation as well as patients who have amputations. These facilities include Northwestern University Hospital and the Rehabilitation Institute of Chicago.

The Booz Allen team conducted an internet survey to identify VAMCs that have implemented the criteria outlined in the PACT Directive

The Booz Allen team utilized SurveyPro, an internet web technology software, to develop and administer the internet survey. With this tool we designed an interactive HTML questionnaire for VAMCs to complete and send back to the Booz Allen team.

The internet survey was a compilation of questions developed by the Booz Allen team designed to solicit information from as many VA facilities as possible about their PACT or other limb preservation programs. The survey questions were based on the PACT Directive to determine levels of implementation of PACT at each VAMC and to understand the disciplines and services involved in treating patients at-risk for limb loss and patients who have had amputations.

Chiefs of Staff at each VAMCs were contacted by e-mail explaining the purpose of the survey, instructions for completing the survey and a link to the survey site. We selected the Chiefs of Staff as the initial contact based on his/her role in the global oversight of the local PACT Program. The Chief of Staff was directed to complete the survey or forward to staff member(s) involved in the coordination of care for patients at-risk for or post-amputation. The PACT survey was available online from February 19, 2002 to April 3, 2002. During this time, VAMCs were invited to respond to a series of questions regarding their familiarity with and implementation of the VHA PACT Directive.

IV. Findings

A review of medical literature on studies related to amputations, diabetes, and peripheral vascular disease (PVD) pointed to several common themes

The Booz Allen team reviewed medical journals regarding public- and private sector studies conducted in the US and in other countries to identify leading practices. This literature review surfaced several themes on preventive strategies and care of patients who are at-risk or have had an amputation. These themes included a multidisciplinary approach to patient care, the cost of care, risk factors for an amputation, prevention, and databases and tracking information.

Multidisciplinary Approach

Findings indicate that a successful methodology to patient care involves a team approach for providing treatment to patients at-risk for and with amputations. Trautner et al and Apelqvist and Larson concluded, in separate studies, that the strategy of multidisciplinary care teams decreased the number of amputations in a population. (1,2) In a third study, Van Gils et al from the Departments of Surgery, Medicine, and Quality management at the Phoenix, AZ, VAMC found that collaboration between vascular surgery and podiatry is an effective strategy for the prevention of lower extremity amputation in high-risk patients. (3) In summary, all three studies support the value of a team or multidisciplinary approach in reducing the risk of amputation in at-risk populations.

Cost of Care

Costs of care of patients with diabetes in the Medicare population were significantly higher than patient populations without diabetes due to the high level of complications associated with the treatment of at-risk patients and patients with amputations. Krop et al compared diabetic and non-diabetic Medicare populations, concluding that the presence of diabetes was associated with higher rates of complications and greater utilization of healthcare resources. They also determined, however, that demographic and clinical factors predict only a small portion of future expenditures in the aggregate diabetic population because clinical status of individuals is dynamic. (4)

In summary notes of a lecture by Gayle E. Reiber, PhD, MPH from VAMC in Puget Sound, on the economics of lower-limb amputations in diabetes [American Diabetes Association 60th Scientific Sessions,

2000], the roles of an aging population and the increasing prevalence of diabetes were cited as causes of higher amputation rates and costs. (5)

Both studies concluded that the sub-population of patients with diabetes are at-risk for more frequent complications, including amputation, and consequently for greater medical expenditures, implying a significant impact for PACT services in containing both complications of this disease and their cost.

Risk Factors

Findings from literature review indicate that there are many risk factors associated with patients at-risk and with amputations. The majority of articles reviewed were studies identifying risk factors for amputation. Collectively, the studies identified the following risk factors:

- aging, with its attendant incidence of peripheral vascular disease (PVD) (2,6,7,8,9,10);
- low education levels (7, 10);
- diabetes (2, 8, 9);
- smoking (9, 10);
- hypertension (9, 10);
- ethnic background (African-American) (7, 10);
- regional variation in management of at-risk patients, with highest incidences of amputations in non-diabetic patients found in Southern and Atlantic states (11); and
- level of first amputation and extent of healing (12, 13).

In summary, the wide acceptance of defined risk factors for amputation identifies vulnerable sub-populations and validates the significant role of screening and limb preservation programs.

Existing Databases

Studies from the VA system specifically addressed the need to track measures and care through the use of databases across the healthcare continuum. A VHA study compared the provision of diabetes care with VHA guidelines for diabetes. This comparison was conducted through the Quality Enhancement Research Initiative for Diabetes Mellitus (QUERI-DM) beginning in 1995. In 2000, QUERI-DM studied the effects of patient choices and preferences in the care process on patient outcomes. Other studies discuss the benefits of merging VA databases with the Medicare database to examine outcomes and hospital utilization by the elderly and trends for foot ulcers. (5, 15) This group of studies, in essence, supports the value of information systems in tracking trends and outcomes for patient sub-groups, to assist in quality improvement and identification of lead practices.

Prevention

Several studies address the importance of early prevention as an effective strategy to reduce the incidence of amputation. Authors from many studies concluded that their findings support the need for formal foot care programs. (1, 2, 7, 10, 16, 17) Another key finding was the early identification and management of PVD as an effective means to reduce the risk of amputation. (2, 8, 18)

The Booz Allen team visited VAMCs to collect information about their PACT Programs and level of implementation

Site visit interviews focused on five critical areas: program coordination, performance measures, infrastructure, clinical processes, and program design. The Booz Allen team interviewed PACT coordinators, PM&R staff, Podiatrists, case managers, and professionals in other related disciplines.

Program Coordination

A number of issues in program coordination were identified during the site visit interviews.

- PACT Coordinators have varying backgrounds and skills
- PACT Coordinators may have multiple roles and responsibilities in the VAMC beyond their PACT responsibilities. Many coordinators support PACT as a secondary role.
- Staff view PACT coordination as a full-time role
- A comparison of programs across facilities identified inconsistencies in focus of the PACT Program, which could be caused by the varied backgrounds of PACT coordinators. For instance, a PACT Program organized by a primary care Nurse focused on prevention. Another facility in which PACT was coordinated by PM&R focused on activities needed after amputation.

Performance Measures

Employees conveyed a broad range of performance measures utilized in support of the PACT Program at their facilities. Many staff identified amputation rates as an indicator of performance. However, they indicated that this should not be the only measure used to gauge outcomes. VAMC staff also identified the Functional Independence Measure (FIM) score as a clinical assessment tool that assists in determining the severity of patient disability upon admission, characterize patient deficits, target intervention needs, monitor progress, and review patient functionality at discharge. The FIM is also used to set rehabilitation goals and monitor functional gains, as well as to predict outcomes. Other performance measures were identified at VAMCs.

- At New York Harbor Health System, patients are assigned a risk assessment level at enrollment. This risk assessment level is then tracked over time to determine disease progress, and will also serve as a performance measure for the overall PACT Program.
- In Miami and Hines VAMCs, patients with amputations are reviewed by the National Follow Up Services (NFS) to provide these facilities with a 30-day post-discharge FIM score.
- Atlanta VAMC has created FY 2001 Special Programs Service Line Goals and Performance Measures related to patients who have received an amputation, as well as created a list of goals for each facility in their VISN to achieve.

Table 1 Performance Measures Utilized at VAMCs as Identified from Site Visits

PERFORMANCE MEASURES	VA ORGANIZATION
Ratio of change in FIM score against length of stay in rehabilitation program	VISN 7
Facilities that have established guidelines for treatment of amputees	VISN 7
Facilities that have established PACT Programs for prevention	VISN 7
Facilities that have established VISN-wide strategic plan for PACT	VISN 7
Amputation rates calculations	Various
Functional Independence Measure (FIM) scores calculations	Various
30 day follow-up FIM score calculations	Various
Percentage of patients who survived at least 3 months with a fitted prosthesis	Hines
Percentage of patients fitted with a prosthesis who were functional ambulators	Hines
Average time for follow up from date of surgery (in months)	Hines
Percentage of patients that had multiple comorbidities	Hines
Average cost of initial temporary prosthesis	Various
Average cost of permanent limb	Various

Infrastructure

The PACT Directive states that the Chief of Staff at VHA field facilities is responsible for "Developing local policy memoranda specifically identifying the responsibilities and actions to be taken by each of the involved services (Medical, Surgical, Physical Medicine and Rehabilitation, Podiatry, Nursing, Primary Care, Social Work, and Prosthetic and Sensory Aids). The Chief of Staff should develop local policies to identify and treat patients at risk of limb loss or those who have had an amputation."[2]

VAMCs were not provided specific funds for staff, education, or supplies when the VA established the PACT Program. Since the Directive does not specify requirements for program structure or personnel, facilities developed the program based on individual facility organizational structure and resources.

Other infrastructure comments from VA staff focused on computer systems and registries. The New York Harbor Health System utilizes the Clinical Reminder software package in CPRS to identify and monitor services provided to veterans such as periodic foot screening. New York also maintains a registry of patients at high risk for limb loss. Another facility, West Palm Beach, maintains a registry of patients with amputations.

[2] *VHA DIRECTIVE 2001-030, PRESERVATION-AMPUTATION CARE AND TREATMENT (PACT) PROGRAM, Department of Veterans Affairs, May 11, 2001.*

Program Design

Staff consistently noted that PACT Programs are designed and implemented differently across VAMCs. They noted a number of issues, which they attributed in part to design and implementation differences.

- Communication among disciplines is inconsistent and incomplete
- As a result, program management and care coordination can be erratic and non-uniform
- VAMCs have different emphases - for example, though Hines, Seattle, Richmond, and Atlanta VAMCs had STAMP programs pre-dating their PACT Programs, Hines' program focus is on post-amputation care, while the other sites noted equal emphasis on preventive and post-amputation care

Clinical Processes

Staff interviewed at several facilities described the existence of clinical guidelines for the PACT Program; those at other facilities noted the existence of separate guidelines for patients at-risk for amputation and for patients who have already undergone amputation.

Several sites described educational programs for patients and/or providers to assist in the provision of patient care.

- Atlanta VAMC has a Veterans Learning Center, which has educational materials and services for patients, including those in the PACT Program.
- Some facilities have implemented programs for clinical education to facilitate in the coordination of disciplines. For example, the Task Force in Seattle was created to educate physicians on appropriate referrals.
- Hines VAMC created "Continuity of Care Patient Flow Chart for Patients with Amputations," as well as a 'PACT Physician Assessment' form. Hines VAMC also created a 'Post-amputation Rehabilitation care' booklet that articulates disciplines' roles, PACT team meeting schedules, factors leading to amputation, and amputation terminology.
- Miami VAMC created a booklet addressing what the PACT Program is, who will benefit, who could be referred, and who identifies the risk. Risk assessment levels, program goals, treatment modalities and team member roles are also mentioned in the booklet.
- Seattle VAMC has a 'VA Center of Excellence for Limb Loss Prevention and Prosthetic Engineering' booklet discussing amputation prevention, prosthetic engineering, and clinical outcomes. In addition, Seattle provides their patients with guidelines related to caring for the skin and the socket liner after receiving a prosthesis; booklets on cast care and Diabetes and Foot care; and pamphlets on Diabetes and Stress Management, Kitchen Safety for patients with Neuropathy, Diabetes, and exercise and foot care tips.

In summary, these seven site visits provided information to the Booz Allen team on the processes, procedures and staffing involved in the PACT Programs' coordination, performance measurement, infrastructure, clinical processes and program design. These critical areas do not address all of the requirements in the PACT Directive.

V. Survey Results

82.1% of the VAMCs contacted as part of the PACT Survey responded to the survey

A total of 140 VAMCs were invited through the Chief of Staff to participate in the survey, which was designed to establish the activities of each VAMC related to PACT Directive 2001-030. The Booz Allen team had chosen the Chief of Staff to designate the appropriate person for his/her VAMC to respond to the internet survey. We wanted a response for each program that services the treatment of patients at-risk for amputation and patients who have had amputations. If there is a continuum of care that involves the collaboration of all VAMCs in a healthcare system, then only one survey needed to be completed. If a healthcare system has more than one program for the treatment of patients at-risk for amputation and patients who have had amputations, then the Booz Allen team instructed the Chief of Staff to respond to the appropriate number of surveys. Of the 163 VAMCs, 140 were sent the internet survey. Facilities that did not receive the survey were:

- outpatient facilities,
- out of the continental U.S., or
- are identified as a larger healthcare system (Maryland Healthcare System encompasses Baltimore, Perry Point & Fort Howard VAMCs and would be identified as one facility).

The Booz Allen team has included details of the internet survey respondents for reference in Appendix E. We received a total of 118 responses to the internet survey, and of these responses, three were duplicate surveys and eliminated. Duplicate entries were eliminated based on the respondents' position. The more senior position, or the one with a greater clinical emphasis was retained. This left a total of 115 unique responses, representing 82.1% of the original 140 that were sent to VAMCs.

Of those who responded to the internet survey, the Booz Allen team compiled and aggregated each survey respondent's title into related services or departments.

- 43 of 114 (38%) respondents indicated Physical Medicine and Rehabilitation (PM&R)
- 19 of 114 (17%) respondents indicated PACT coordination
- 17 of 114 (15%) respondents indicated Chief of Staff Office
- 8 of 114 (7%) respondents indicated Podiatry
- 8 of 114 (7%) respondents indicated Primary Care
- 7 of 114 (6%) respondents indicated Prosthetics and Sensory Aids Services (PSAS)
- 4 of 114 (4%) respondents indicated Nursing Service
- 4 of 114 (4%) respondents indicated 'Other' position titles
- 2 of 114 (1%) respondents indicated Quality Management

This internet survey was designed to identify the level of implementation of the PACT Program within individual VAMCs and throughout VA. The survey captured "YES/NO" responses as well as open-ended responses. The individual facilities' responses were collected and aggregated into the results of this Deliverable.

A preliminary test was performed on the internet survey by Booz Allen's multidisciplinary staff and subcontractor statisticians. As a result of the test procedure, Booz Allen staff updated the survey to clarify questions and possible answers.

The Booz Allen team implemented strategies to address the anticipated data limitations of the internet survey

In designing and implementing the internet survey, the Booz Allen team was mindful that limitations might affect survey responses and analysis. Limitations generic to most surveys were identified as possible influences on the survey results. We considered these limitations in our analysis and designed strategies to ensure the validity and reliability of the collected data.

- Respondents' misinterpretation of individual survey questions
- The influence of respondents' concerns about the possible impacts of survey results
- Objectivity of individual survey respondents and the possibility of intrinsic bias or perspective in their responses
- Incomplete or absent responses to some survey questions
- Variability in interpretation of survey terms, wording, and responses
- Representation of submitted responses to the entire VAMC system

Similarly, a number of potential limitations specific to this PACT internet survey were identified.

- Not all surveys were filled out completely. This resulted in findings per question that do not include all facilities that responded to the survey.
- There was significant variability in the respondents' backgrounds, disciplines, organizational roles and positions, and clinical/administrative experience implicating inconsistencies in responses.
- A number of respondents reported having a limb preservation program, but denied having a PACT Program, suggesting organizational differences in nomenclature, PACT awareness, or varying program developmental stages.
- Responses to survey questions suggested evidence of further nomenclature differences or of varying levels of understanding of PACT Program components as stated in the PACT Directive.

In preparation for data analysis, the Booz Allen team reviewed the question response rate by evaluating the responses to each question to reduce the effect of low response rates per question. Very few survey questions were answered by all respondents. In fact, all 115-survey respondents answered only three survey questions. None of the questions produced an individual question response rate low enough to raise concerns. For the questions designed to apply to all VAMCs (versus those questions which were a follow-up to a previous question; "if yes,…?") no fewer than 97 (84%) VAMCs responded (Range= 84% to 100%). The response rate for those "if yes" questions ranged from 20% to 100%.

The survey instrument did not allow space for VAMC respondents to indicate why they did not respond to a question. However, the small percentage of non-respondents to individual questions did not adversely influence analyses. Once the Booz Allen team determined data were accurate and without cause for concerns, frequencies and percentages were determined. Findings are presented in the following section.

Survey results are presented by question to provide a high level overview of the PACT Program

Question 1: Is your facility aware of the PACT Directive 2001-030?

Out of 115 total respondents to the PACT survey, 113 facilities answered this particular question. [3]

- 103 of 113 (91%) indicated they were aware of the Directive
- 10 of 113 (9%) indicated they were not aware of the Directive

Question 2A: Does your facility have a program related to treatment of patients at-risk for amputation and patients who have had amputations, i.e., PACT Program, or another process to identify and track patients at-risk for limb loss or amputation?

For this question, some facilities indicated they had **both** a PACT Program and other processes to identify and track patients at-risk for limb loss or with amputations. The total number of responses to this question exceeds 115 because respondents had the ability to answer both questions.

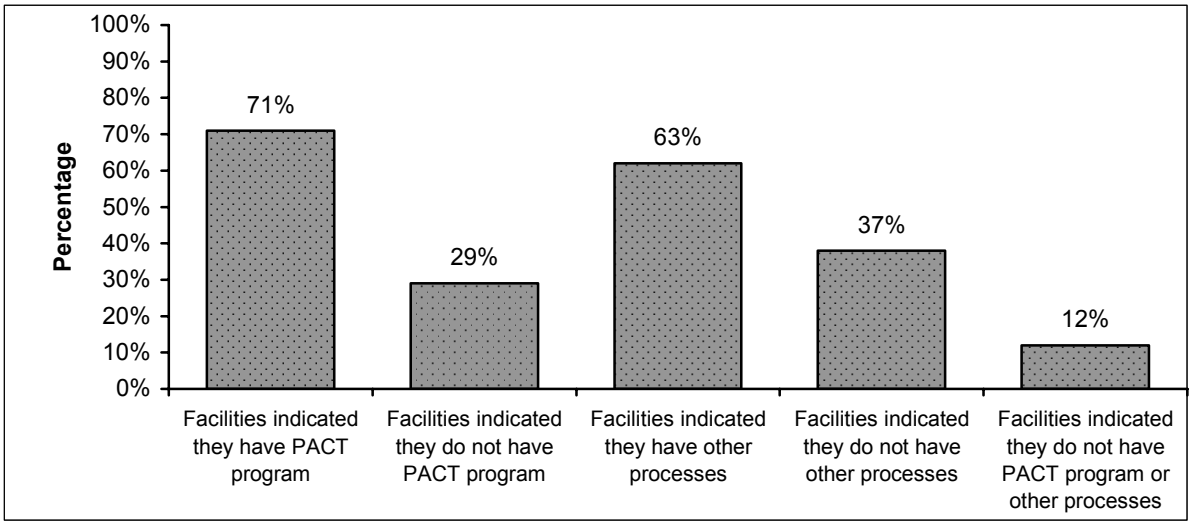
For the PACT Program option, 109 out of 115 facilities answered:[4]

- 77 of 109 (71%) indicated they did have a PACT Program
- 32 of 109 (29%) indicated they did not have a PACT Program

For the option of an alternative process, 68 out of 115 facilities responded to this question:[5]

- 43 of 68 (63%) indicated they did have other processes
- 25 of 68 (37%) indicated they did not have other processes

There was a total of 14 out of 115 (12%) of facility staff who indicated they did not have a PACT Program or other processes to identify and track patients **at-risk for limb loss** or **with amputations**.



3 *2 facilities did not respond to this question.*

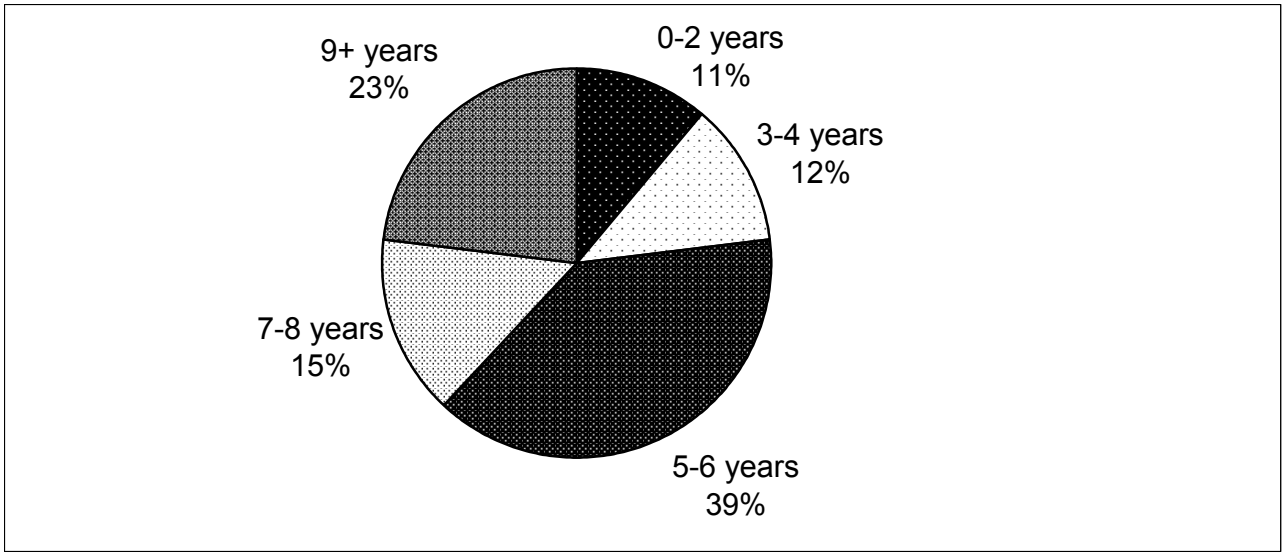
4 *6 facilities did not respond to this question*

5 *47 facilities did not respond to this question*

Question 2B: If yes, how many years has your program/process for the treatment of patients at-risk for amputation and patients who have had amputations been in existence at your facility?

100 of 115 respondents answered this question[6]. Of the facility staff who reported to have a PACT Program or other processes in place to treat patients at-risk or patients who have had amputations:

- 11 of 100 (11%) indicated they had programs for 0-2 years
- 12 of 100 (12%) indicated they had programs for 3-4 years
- 39 of 100 (39%) indicated they had programs for 5-6 years
- 15 of 100 (15%) indicated they had programs for 7-8 years
- 23 of 100 (23%) indicated they had programs for 9+ years



Question 3A: Please check all that best fit the description of the PACT Program at your facility:

Because facility staff could indicate more than one description, the total number of responses to this question equals more than one hundred percent. There were a total of 113 respondents that answered this question.[7]

DESCRIPTION	# (%) OF RESPONDENTS
PACT Program is preventive and educational (e.g., to identify risky foot)	80 (71%)
There is no formal PACT clinic	57 (50%)
PACT specialized team provides screening, monitoring and follow-up services on all amputation related prevention and follow-ups	53 (47%)
Have a PACT coordinator with major responsibilities, i.e., screen, refer, and	51 (45%)

6 *15 facilities did not respond to this question*

7 *2 facilities did not respond to this question*

coordinate services for patients	
Meet regularly (weekly, every other week, monthly) as a clinic	50 (44%)
Patients seen in PACT are mostly post-amputation patients	13 (12%)

Question 3B: Please check all services that are provided through the PACT Program:

Again, because facility staff could indicate more than one description that fit their PACT Program, the total number of responses to this question equals more than one hundred percent. There were a total of 99 respondents that answered this question.[8]

SERVICES	# (%) OF RESPONDENTS
Provide services to both in-patients and ambulatory patients at our facility	85 (86%)
Provide screening to identify and monitor patients at-risk for amputation, then, if necessary, refer them to the appropriate physicians for further follow-ups	82 (83%)
Provide amputation-related follow-up services, e.g., monitoring dressing, tissue recovering, and/or prosthesis fitting and management	73 (74%)
Provide only outpatient service	14 (14%)

8 *16 facilities did not respond to this question*

Question 4: Does your facility have the following regarding the treatment of patients <u>at-risk for amputation</u>?

The details below represent the responses to the four different components regarding the treatment of patients at-risk for amputation. 109 of 115 respondents addressed this question. [9]

- 65 of 109 (60%) indicated that they <u>had</u> clinical guidelines regarding the treatment of patients at-risk for amputation
- 44 of 109 (40%) indicated that they <u>did not have</u> clinical guidelines regarding the treatment of patients at-risk for amputation

112 of 115 respondents addressed this question.[10]

- 62 of 112 (55%) indicated they <u>had</u> identification methods for all patients who entered the health system who may be considered at-risk for amputations
- 50 of 112 (45%) indicated they <u>did not have</u> identification methods for all patients who entered the health system who may be considered at-risk for amputations

110 of 115 respondents addressed this question.[11]

- 38 of 110 (35%) indicated that they <u>had</u> tracking methods for all patients who entered the health system who may be considered at-risk for amputation
- 72 of 110 (65%) indicated that they <u>did not have</u> tracking methods for all patients who entered the health system who may be considered at-risk for amputation

111 of 115 respondents addressed this question.[12]

- 60 of 111 (53%) indicated that they <u>had</u> assignment of a risk-assessment level for at-risk patients
- 52 of 111 (47%) indicated that they <u>did not have</u> assignment of a risk-assessment level for at-risk patients

Question 5A: Has your facility issued a local PACT policy based upon the National PACT Directive to meet local facility variations in programming?

114 of 115 respondents addressed this question. [13]

- 68 of 114 (60%) facilities <u>have not</u> issued a local PACT policy
- 46 of 114 (40%) facilities <u>have</u> issued a local PACT policy

9 *6 facilities did not respond to this question*
10 *3 facilities did not respond to this question*
11 *5 facilities did not respond to this question*
12 *4 facilities did not respond to this question*
13 *1 facility did not respond to this question*

Question 5B: If yes, please describe the changes and additions

This was an open-ended question with varied responses. There were 33 responses of the 46 respondents that indicated that they had issued a local PACT policy. These responses were compiled and aggregated into similar themes.

- Addition of a smoking cessation program
- Establishment of services or categories that identify diabetics and prior amputees. Services or categories would include foot screening/exam, clinical reminders for annual foot checks,
- Transferal of the primary responsibility for screening patients to the primary care providers

In addition to the aggregated responses, facilities also provided unique responses.

- A bi-monthly amputee support group
- An algorithm for identifying and managing patients at-risk for amputations; this is a multidisciplinary effort
- Interdisciplinary treatment team that now includes a dietitian

Question 6A: Does your facility have specific written criteria/guidelines/algorithms for referring patients to the PACT Program?

- 57 of 115 (50%) reported they <u>have</u> specific written criteria/guidelines/algorithms for referring patients to the PACT Program
- 58 of 115 (50%) reported they <u>do not have</u> specific written criteria/guidelines/algorithms for referring patients to the PACT Program

Question 6B: Does your facility have specified written criteria/guidelines/algorithms to assist in the management of patients with chronic diseases that put them at-risk for limb loss?

Since facilities could indicate more than one description that fit their program, the total number of responses to this question equals more than one hundred percent. 114 of 115 respondents answered this question. [14]

- 85 of 114 (75%) reported they <u>have</u> specified written criteria/guidelines/algorithms to assist in the management of patients with chronic diseases that put them at-risk for limb loss
- 29 of 114 (25%) reported they <u>do not have</u> specified written criteria/guidelines/algorithms to assist in the management of patients with chronic diseases that put them at-risk for limb loss

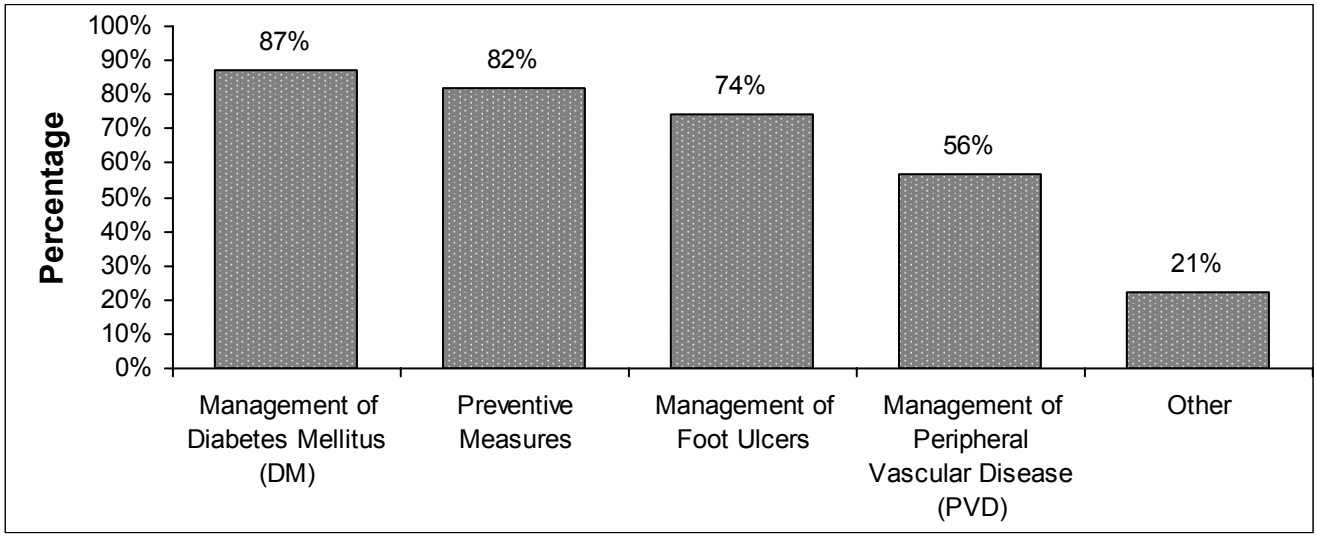
[14] *1 respondent did not address this question.*

Respondents indicated several specific criteria/guidelines/algorithms utilized at their facility.

- 74 of 85 (87%) indicated Management of Diabetes Mellitus (DM)
- 70 of 85 (82%) indicated Preventive Measures
- 63 of 85 (74%) indicated Management of Foot Ulcers
- 48 of 85 (56%) indicated Management of Peripheral Vascular Disease (PVD)
- 18 of 85 (21%) indicated Other

18 respondents indicated they had "Other" criteria/guidelines/algorithms utilized at their facility. These responses were compiled and aggregated into similar themes.

- Creation of wound clinics or programs
- Amputee algorithms



Question 6C: Do the physicians and clinical services at your facility use these criteria/guidelines/algorithms to manage these patients?

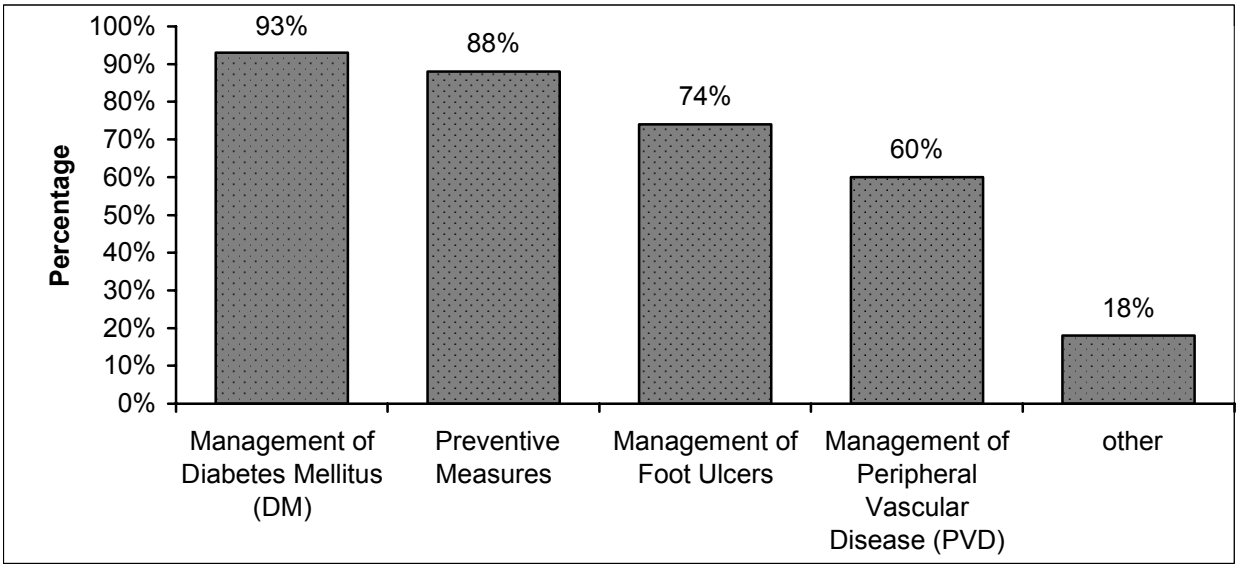
Of the potential 85 respondents who reported to have criteria/guidelines/algorithms:[15]

- 69 of 78 (89%) reported physicians and clinical services at their facilities used these criteria/guidelines/algorithms to manage patients
- 9 of 78 (11%) reported physicians and clinical services at their facilities had not used these criteria/guidelines/algorithms to manage patients

[15] *7 did not respond to this question*

Respondents indicated several specific criteria/guidelines/algorithms used at their facilities:

- 65 of 69 (93%) indicated Management of Diabetes Mellitus (DM)
- 62 of 69 (88%) indicated Preventive Measures
- 50 of 69 (74%) indicated Management of Foot Ulcers
- 41 of 69 (60%) indicated Management of Peripheral Vascular Disease (PVD)
- 11 of 69 (18%) indicated Other



11 respondents indicated they had "Other" criteria/guidelines/algorithms to manage patients. These responses were compiled and aggregated into similar themes. These themes include:

- Amputees/Prosthetics
- Therapeutic Foot Wear

Question 7: Does the PACT Program provide a mechanism/process for collaboration between medical disciplines; e.g., Vascular Surgery, Orthopedic Surgery, PM&R and/or Podiatry?

113 of 115 respondents addressed this question. [16]

- 84 of 113 (74%) reported their PACT Program provides a mechanism/process for collaboration between medical disciplines; e.g. Vascular Surgery, Orthopedic Surgery, PM&R and/or Podiatry
- 29 of 113 (26%) reported their PACT Program did not provide a mechanism/process for collaboration between medical disciplines; e.g. Vascular Surgery, Orthopedic Surgery, PM&R and/or Podiatry

[16] *2 facilities did not respond to this question*

Question 8A: Which health care disciplines and services are involved in the process of treatment of patients who are <u>at-risk for amputation</u>?

Because facilities could indicate more than one description that fit their program, the total number of responses to this question equals more than one hundred percent.[17]

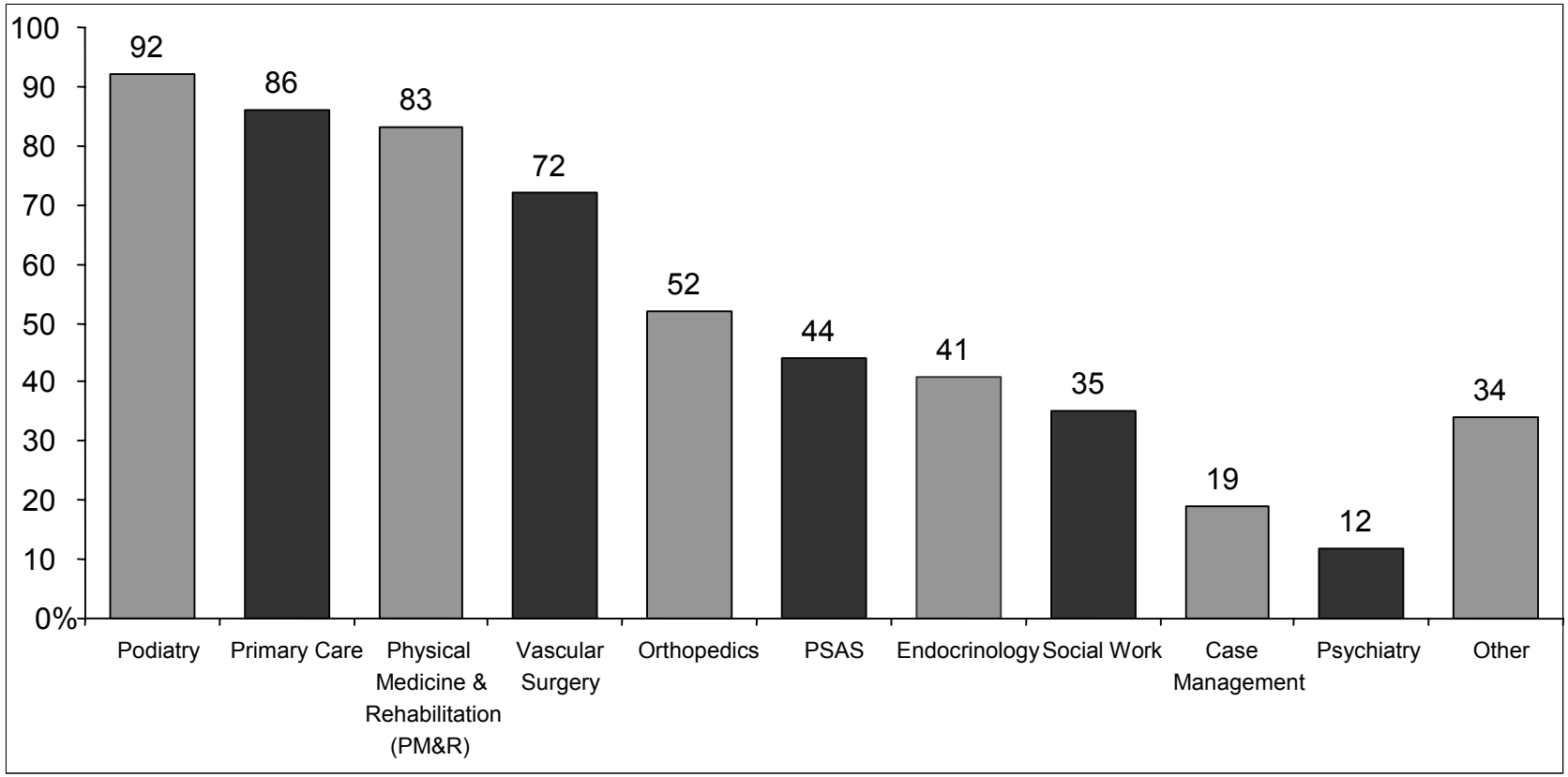
- 104 of 113 (92%) indicated Podiatry
- 97 of 113 (86%) indicated Primary Care
- 94 of 113 (83%) indicated Physical Medicine & Rehabilitation (PM&R)
- 82 of 113 (73%) indicated Vascular Surgery
- 59 of 113 (52%) indicated Orthopedics
- 50 of 113 (44%) indicated PSAS
- 46 of 113 (41%) indicated Endocrinology
- 39 of 113 (35%) indicated Social Work
- 21 of 113 (19%) indicated Case Management
- 14 of 113 (12%) indicated Psychiatry
- 39 of 113 (34%) indicated Other

39 respondents indicated they had "Other" health care disciplines and services. These responses were compiled and aggregated into similar themes, see graph on next page.

- Wound care nurse or specialist
- General Surgery
- Dermatology
- Nutrition
- Plastic Surgery

[17] *2 facilities did not respond to this question*

Health Care Services Involved in Treating Patients Who Are At-Risk for Amputation



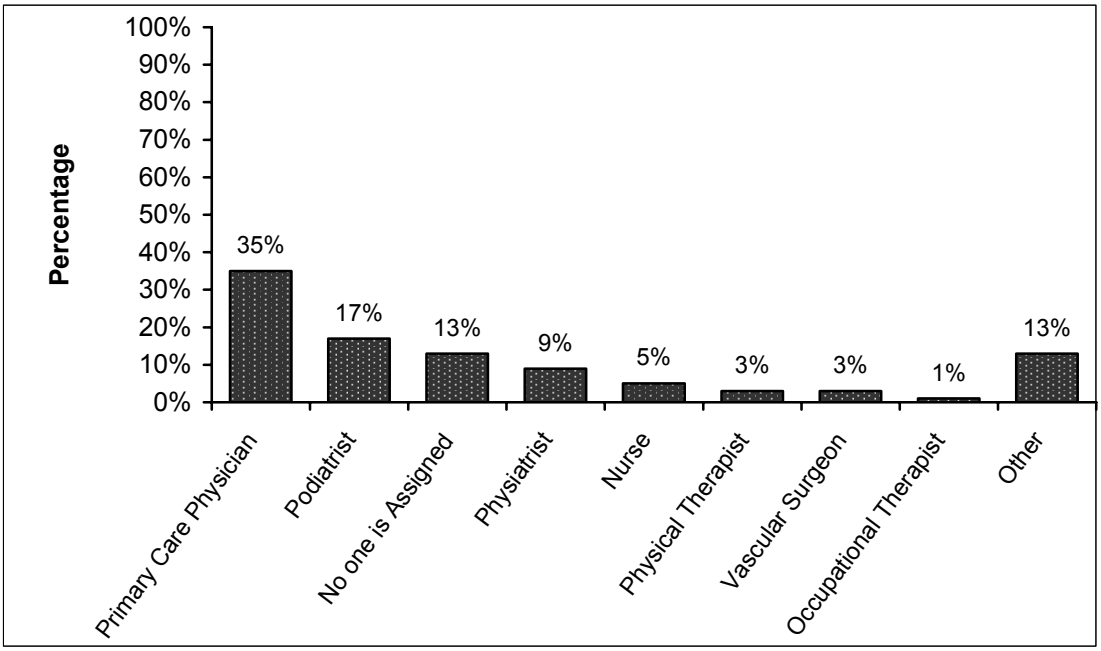
Question 8B: Who has the primary responsibility for coordinating the care for patients <u>at-risk for amputation</u>?

113 of 115 respondents answered this question.[18]

- 40 (35%) indicated Primary Care Physician
- 19 (17%) indicated Podiatrist
- 15 (13%) indicated No one is Assigned
- 10 (9%) indicated Physiatrist
- 6 (5%) indicated Nurse
- 4 (3%) indicated Physical Therapist
- 3 (3%) indicated Vascular Surgeon
- 1 (1%) indicated Occupational Therapist
- 15 (13%) indicated Other

15 respondents indicated "Other" individuals had primary responsibility for coordinating the care for patients at-risk for amputation. These responses were compiled and aggregated into similar themes.

- Diabetic Foot Clinic
- Director, Rehabilitation Medicine
- Kinesiotherapist
- PACT Coordinator
- No primary coordinator exists at this time; will be PT

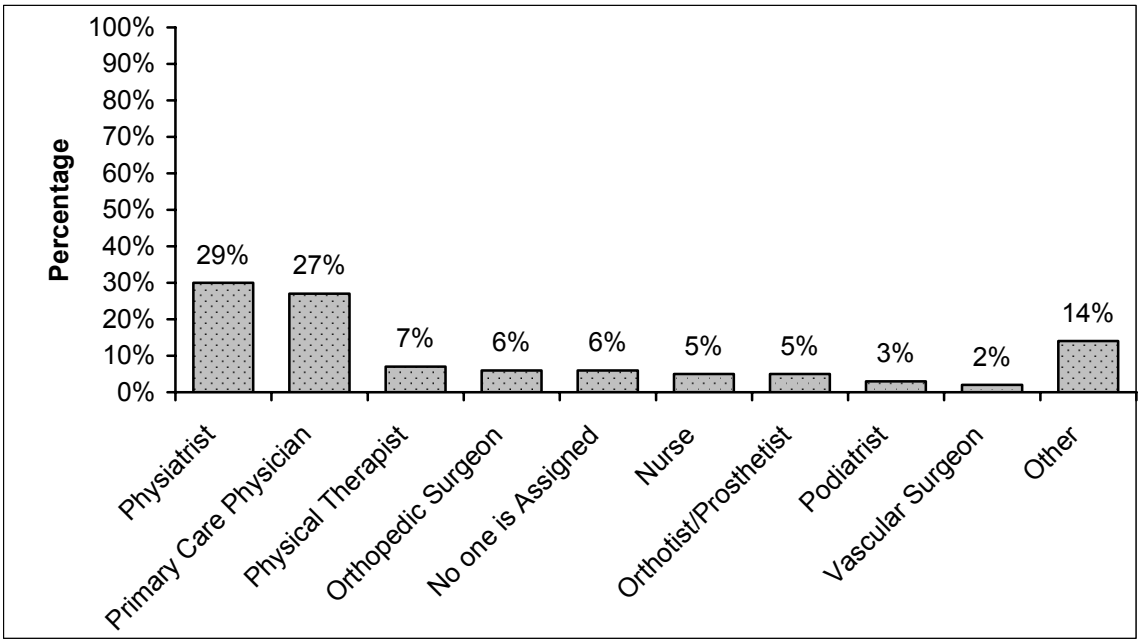


[18] *2 facilities did not respond to this question*

Question 8C: Who has the primary responsibility for coordinating the care for patients who have had amputations?

114 of 115 respondents answered this question.[19]

- 33 (29%) indicated Physiatrist
- 30 (26%) indicated Primary Care Physician
- 8 (7%) indicated Physical Therapist
- 7 (6%) indicated Orthopedic Surgeon
- 7 (6%) indicated No one is Assigned
- 4 (5%) indicated Nurse
- 4 (5%) indicated Orthotist/Prosthetist
- 3 (3%) indicated Podiatrist
- 2 (2%) indicated Vascular Surgeon
- 16 (14%) indicated Other



16 respondents indicated they had "Other" individuals who had primary responsibility for coordinating the care for patients who have had amputations. These responses were compiled and aggregated into similar themes.

- Surgical specialty that has performed the surgery
- Collaborative effort between surgery, prosthetics and rehabilitation medicine
- Combination of surgery, PM&R and primary care
- PM&R Physician Assistant

[19] *1 facility did not respond to this question*

- Surgical service, then through PSAS
- Primary care for medical management/PMRS for amputation management
- Rehab Medicine
- PACT Coordinator

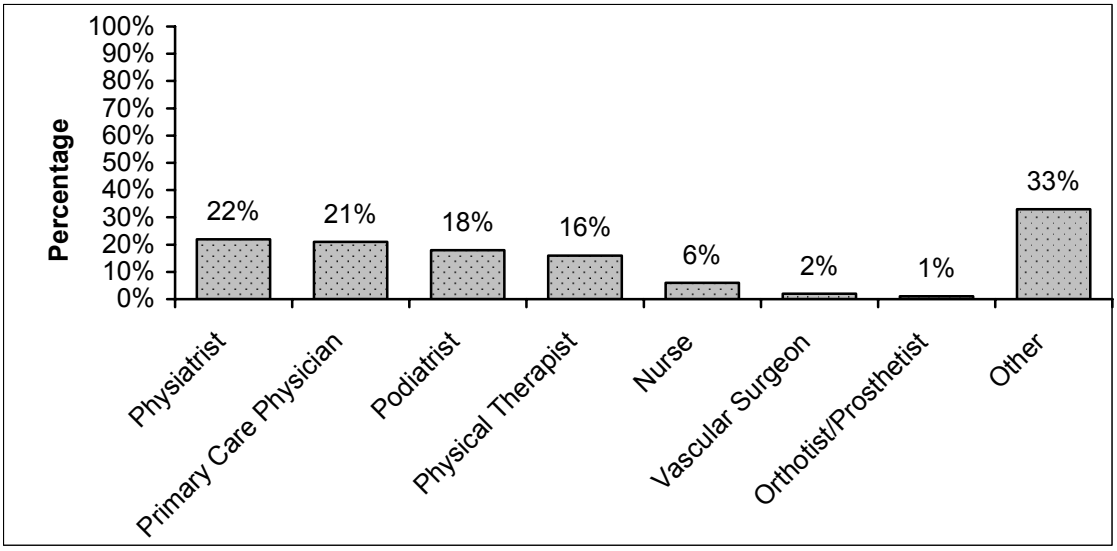
Question 9A: Does your facility have a person designated as the PACT coordinator?

111 of 115 respondents answered this question.[20]

- 80 (72%) reported their facility had a person designated as the PACT coordinator
- 31 (28%) reported their facility did not have a person designated as the PACT coordinator

Question 9B: Who has been designated to coordinate the efforts of all medical disciplines required for the treatment of patients at-risk for limb loss?

- 18 of 80 (22%) indicated Physiatrist
- 17 of 80 (21%) indicated Primary Care Physician
- 14 of 80 (17%) indicated Podiatrist
- 13 of 80 (16%) indicated Physical Therapist
- 5 of 80 (6%) indicated Nurse
- 2 of 80 (2%) indicated Vascular Surgeon
- 1 of 80 (1%) indicated Orthotist/Prosthetist
- 27 of 80 (33%) indicated Other



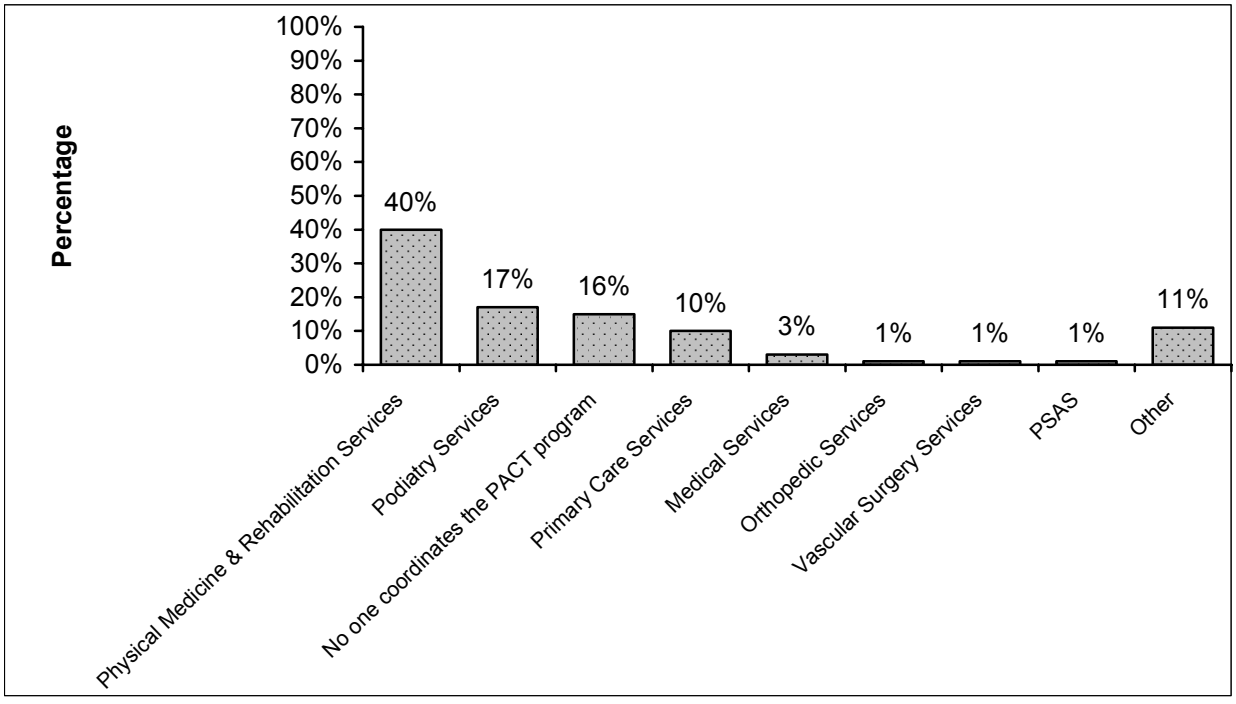
[20] *4 facilities did not respond to this question*

27 respondents indicated “Other” individuals who have been designated to coordinate the efforts of all medical disciplines required for the treatment of patients **at-risk for limb loss or amputation**. These responses were compiled and aggregated into similar themes:

- Director, Rehabilitation Medicine
- No one person has been identified
- Surgical Service Physician Assistant
- DLP (Diabetic Limb Preservation) Team directed by Chief Primary Care Diabetics and Wounds
- Kinesiotherapist
- Nurse Practitioner

Question 9C: At your facility, what service is primarily responsible for coordinating the PACT Program?

- 47 of 115 (40%) indicated Physical Medicine & Rehabilitation Services
- 19 of 115 (17%) indicated Podiatry Services
- 18 of 115 (16%) indicated No one coordinates the PACT Program
- 12 of 115 (10%) indicated Primary Care Services
- 3 of 115 (3%) indicated Medical Services
- 1 of 115 (1%) indicate Orthopedic Services
- 1 of 115 (1%) indicated Vascular Surgery Services
- 1 of 115 (1%) indicated PSAS
- 13 of 115 (11%) indicated Other



13 respondents indicated "Other" services that are primarily responsible for coordinating the PACT Program. These responses were compiled and aggregated into similar themes.

- Joint Physical Medicine & Rehabilitation Services and Orthotics
- Neurology & Rehabilitation
- Surgery Service

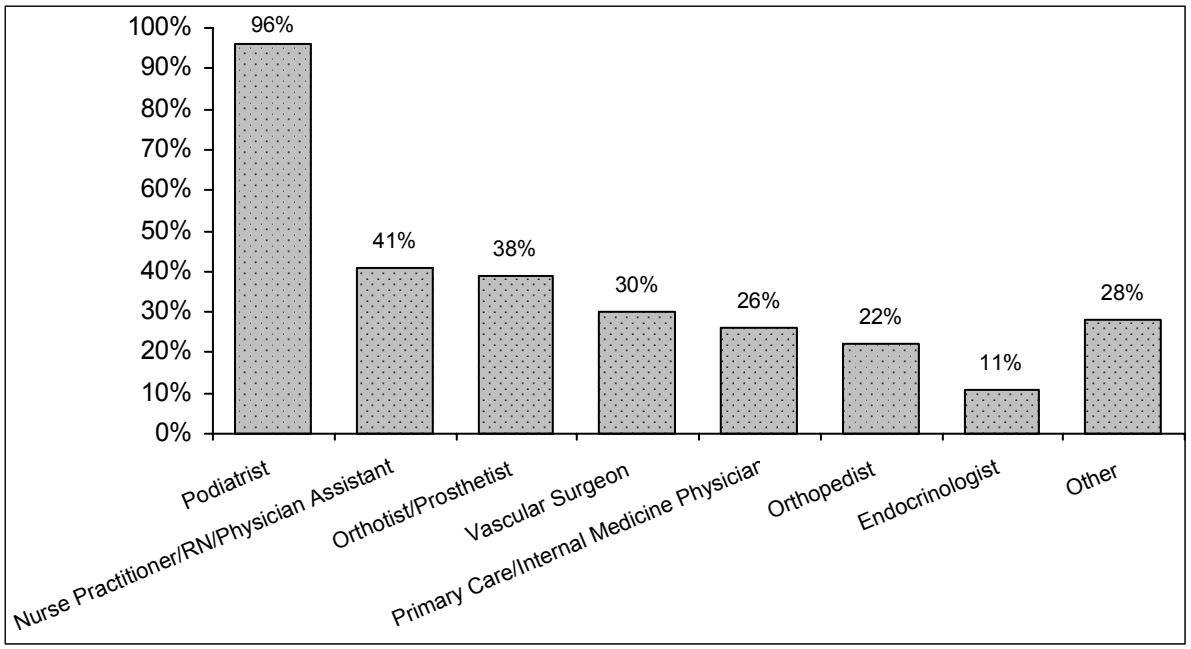
Question 10A: Does your facility provide foot specialty care?

112 of 115 respondents addressed this question.[21]

- 110 (98%) reported their facility provides foot specialty care
- 2 (2%) reported their facility does not provide foot specialty care

Question 10B: If yes, by whom?

- 106 of 110 (96%) indicated Podiatrist
- 45 of 110 (41%) indicated Nurse Practitioner/RN/Physician Assistant
- 42 of 110 (38%) indicated Orthotist/Prosthetist
- 33 of 110 (30%) indicated Vascular Surgeon
- 29 of 110 (26%) indicated Primary care/Internal Medicine Physician
- 24 of 110 (22%) indicated Orthopedist
- 12 of 110 (11%) indicated Endocrinologist
- 31 of 110 (28%) indicated Other



[21] *3 facilities did not respond to this question*

31 respondents indicated "Other" individuals provided foot specialty care. These responses were compiled and aggregated into similar themes.

- Wound Clinic
- Dermatology
- Nursing Service
- Diabetic Educator
- Physiatrist
- Physical Therapist

Question 11A: Does your facility have formal guidelines related to foot checks and foot screenings?

- 105 of 115 (91%) reported their facility has formal guidelines related to foot checks and foot screenings
- 10 of 115 (9%) reported their facility does not have formal guidelines related to foot checks and foot screenings

Question 11B: If yes, are they utilized by all clinicians providing principal care to patients at-risk for amputation?

- 84 of 105 (80%) reported that guidelines are utilized by all clinicians providing principal care to patients at-risk for amputation
- 21 of 105 (20%) reported that guidelines are not utilized by all clinicians providing principal care to patients at-risk for amputation

Question 12: Does your facility assess PACT patient satisfaction at least annually?

114 of 115 respondents answered this question. [22]

- 100 of 114 (88%) reported their facility does not assess PACT patient satisfaction at least annually
- 14 of 114 (12%) reported their facility does assess PACT patient satisfaction at least annually

Question 13A: Does your facility gather data to track patient outcomes in the Functional Status and Outcomes Database [FSOD] for the amputation population across the full continuum of rehab care related to PACT Program?

114 of 115 respondents answered this question. [23]

- 67 of 114 (59%) reported their facility gathers data to track patient outcomes in the Functional Status and Outcomes Database [FSOD] for the amputation population across the full continuum of rehab care related to PACT Program

[22] *1 facility did not respond to this question.*

[23] *1 facility did not respond to this question.*

- 47 of 114 (41%) reported their facility does not gather data to track patient outcomes in the Functional Status and Outcomes Database [FSOD] for the amputation population across the full continuum of rehab care related to PACT Program

Question 13B: If yes, are reports developed from FSOD data related to PACT Program to track patient outcomes?

Of the 67 respondents who gather data to track patient outcomes in the FSOD:

- 35 of 67 (52%) reported their reports are not developed from FSOD data related to PACT Program to track patient outcomes
- 32 of 67 (48%) reported their reports are developed from FSOD data related to PACT Program to track patient outcomes

Question 14A: Is there a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community?

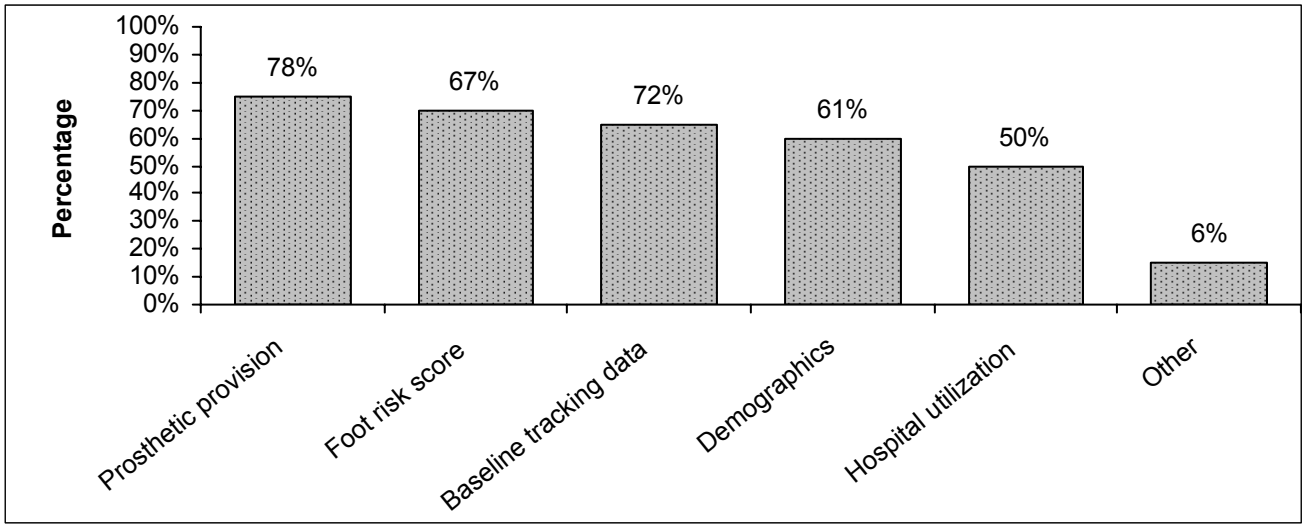
114 of 115 respondents answered this question. [24]

- 96 of 114 (84%) reported there is not a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community
- 18 of 114 (16%) reported there is a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community

[24] *1 facility did not respond to this question.*

Question 14B: If yes, what does this data set include?

- 14 of 18 (78%) indicated Prosthetic provision
- 12 of 18 (67%) indicated Foot risk score
- 13 of 18 (72%) indicated Baseline tracking data
- 11 of 18 (61%) indicated Demographics
- 9 of 18 (50%) indicated Hospital utilization
- 1 of 18 (6%) indicated Other



1 respondent indicated "Other" information the data set included.

- Diagnostic tests and visits prior to amputation
- EPRP data only
- Photo of wound progress

Question 15A: Is there a process for tracking data for <u>all patients with amputations</u> from the day of entry into the VA health care system, through all levels of care, until discharged back into the community?

114 of 115 respondents addressed this question: [25]

- 72 of 114 (63%) reported there <u>is not</u> a process for tracking data for all patients with amputations from the day of entry into the VA health care system, through all levels of care, until discharged back into the community
- 42 of 114 (37%) reported there <u>is</u> a process for tracking data for all patients with amputations from the day of entry into the VA health care system, through all levels of care, until discharged back into the community

Question 15B: If yes, what does this data set include?

- 29 of 42 (69%) indicated Hospital utilization
- 27 of 42 (64%) indicated Prosthetic provision
- 23 of 42 (55%) indicated Baseline tracking data
- 21 of 42 (50%) indicated Demographics
- 14 of 42 (33%) indicated Foot risk score
- 16 of 42 (38%) indicated Other

16 respondents indicated "Other" information the data set included. These responses were compiled and aggregated into similar themes.

- Diagnostic tests and visits prior to amputation
- Diabetic and surgery patients
- Photo of wound progress

Question 16A: Does your facility evaluate annually the outcomes of the PACT Program?

- 84 of 114 (74%) reported their facility <u>does not evaluate</u> annually the outcomes of the PACT Program
- 30 of 114 (26%) reported their facility <u>evaluates</u> annually the outcomes of the PACT Program

[25] *1 facility did not respond to this question.*

Question 16B: If yes, does it include a review of local facility's amputation rates for: Diabetic populations? Non-Diabetic populations? AND

Question 16C: If yes, does it include a review of network's amputation rates for: Diabetic populations? Non-Diabetic populations?

30 of 114 facilities reported that their facility evaluates annually the outcomes of the PACT Program. The tables below represent those facilities.

QUESTION	DIABETIC POPULATION		NON-DIABETIC POPULATION	
	# (%) OF RESPONDENTS		# (%) OF RESPONDENTS	
	YES	NO	YES	NO
If yes, does it include a review of local facility's amputation rates for: Diabetic populations? Non-Diabetic populations?	25 (83%)	5 (17%)	23 (77%)	7 (33.0%)
If yes, does it include a review of network's amputation rates for: Diabetic populations? Non-Diabetic populations	16 (53%)	14 (47%)	15 (50%)	15 (50%)

Question 16D: If yes, does it include functional status determination for patients who did not undergo amputation? AND

Question 16E: If yes, do you look to see if the amputation was time-appropriate; i.e., did the patient receive the amputation at the right time?

QUESTION	# (%) OF RESPONDENTS	
	YES	NO
If yes, does it include functional status determination for patients who did not undergo amputation?	6 (20%)	24 (80%)
If yes, do you look to see if the amputation was time-appropriate; i.e., did the patient receive the amputation at the right time[26]	5 (19%)	21 (81%)

[26] *4 did not respond to this question.*

Question 16F: If your facility evaluates other outcomes annually of the PACT Program, please explain:

This was an open-ended question with 18 varied responses. These responses were compiled and aggregated into similar themes.

- The number of patients fitted with prosthesis
- Evaluation of the number of visits and diagnostic test prior to amputation
- Prosthetic fitting rate and survival
- Foot ulcer rates
- Number of veterans enrolled in the PACT Program and the number who are receiving follow-up care through the PACT Program
- Number of patients who undergo amputations that were not referred to the PACT Program prior to amputation
- Comparison of year to year amputation rates (BKA & AKA)
- Decrease in number of amputations

In addition to the aggregated responses, facilities listed unique responses to the survey question.

- Smoking status of patient and time of amputation
- Increase percent of amputee patients discharged from inpatient rehabilitation units to community setting
- Quarterly assessment of PACT Program on enhanced outcomes for patients with special needs and special disabilities
- Database includes HgAIC, creatine, micro albumin, insulin dose, HTN, healing rates, death rates

Question 17: Does your facility have amputation rates significantly higher than (A) Your facility from past years, (B) Other VAMCs, (C) National rates within VHA, (D) National rates within the private sector, (E) Local private sector rates?

The details below represent the responses to the five different components regarding amputation rates at facilities. The total number of responses to this question equals more than one hundred percent because respondents had the ability to answer more than one question.

Facilities indicated whether their facility had amputation rates significantly **higher than past years**.

- 1 of 115 (1%) indicated **'Yes'** that their facility had amputation rates significantly higher than past years
- 63 of 115 (55%) indicated **'No'** that their facility did not have amputation rates significantly higher than past years
- 51 of 115 (44%) indicated they were **'Uncertain'** if their facility had amputation rates significantly higher than past years

114 of 115 facilities indicated whether their facility had amputation rates significantly **higher than other VAMCs.** [27]

- 7 of 114 (6%) indicated **'Yes'** that their facility had amputation rates significantly higher than other VAMCs
- 35 of 114 (31%) indicated **'No'** that their facility did not have amputation rates significantly higher than other VAMCs
- 72 of 114 (63%) indicated they were **'Uncertain'** if their facility had amputation rates significantly higher than other VAMCs

114 of 115 facilities indicated whether their facility had amputation rates **significantly higher than national rates with VHA.**

- 6 of 114 (6%) indicated **'Yes'** that their facility had amputation rates significantly higher than national rates with VHA
- 32 of 114 (28%) indicated **'No'** that their facility did not have amputation rates significantly higher than national rates with VHA
- 76 of 114 (66%) indicated they were **'Uncertain'** if their facility had amputation rates significantly higher than national rates with VHA

113 of 115 facilities indicated whether their facility had amputation rates significantly **higher than national rates within the private sector.** [28]

- 2 of 113 (2%) indicated **'Yes'** that their facility had amputation rates significantly higher than national rates within the private sector
- 17 of 113 (15%) indicated **'No'** that their facility did not have amputation rates significantly higher than national rates within the private-sector
- 94 of 113 (83%) indicated they were **'Uncertain'** if their facility had amputation rates significantly higher than national rates within the private-sector

113 of 115 facilities indicated whether their facility had amputation rates significantly **higher than private sector rates**.[29]

- 1 of 113 (1%) indicated **'Yes'** that their facility had amputation rates significantly higher than private- sector rates
- 13 of 113 (12%) indicated **'No'** their facility did not have amputation rates significantly higher than private sector rates
- 99 of 113 (87%) indicated they were **'Uncertain'** if their facility had amputation rates significantly higher than private-sector rates

[27] *1 facility did not respond to this question.*

[28] *2 facilities did not respond to this question.*

[29] *2 did not respond to this question.*

Question 18A: Does your facility have a formal performance plan specific to the local PACT Program? AND

Question 18B: If yes, does your facility provide evidence of the use of the data in subsequent program revisions?

According to the PACT Directive, the Chief of Staff is responsible to "evaluate annually the outcomes of the PACT Program, including a review of local facility and network amputation rates for both diabetic and non-diabetic populations. For those facilities noted to have higher than average amputation rates, the Chief of Staff's office needs to develop a formal performance plan to evaluate the program locally and provide evidence of the use of this data in subsequent program modulation."

The respondents who answered 'Yes' to Question 17, according to the PACT Directive, were supposed to develop a formal performance plan. Questions 18A and 18B were tabulated and the findings presented in the table below.

QUESTION	# (%) OF RESPONDENTS	
	YES	NO
Does your facility have a formal performance plan specific to the local PACT Program? [30]	17 (15.0%)	95 (85.0%)
If yes, does your facility provide evidence of the use of the data in subsequent program revisions?	12 (75.0%)	4 (25.0%)

Question 19A: Is your facility reviewed as part of the EPRP process? AND

Question 19B: If yes, are the results of the EPRP process shared with your facility?

VHA's External Peer Review Program (EPRP) is conducted as a part of VHA's SERP-review process, which is a system-wide process, external to each VAMC, intended to evaluate quality of care in VAMCs. VHA has used EPRP reviews since 1992 to monitor the quality of care in VAMCs. It replaced reviews that were done under the former Medical District Initiated Peer Review Organization Program (MEDIPRO).

Annually, EPRP review evaluates 50,000 patients' charts, and the EPRP contractors share the data with VISN and VAMC Directors. EPRP Field Advisory Council reviews the program annually and makes recommendations to VHA headquarters. Since the beginning of the EPRP process, more than 95 percent of cases have met or exceeded community standards of care. The PACT Directive states that the PM&R Director is "responsible for annual reporting of EPRP compliance with early identification and referral of patients found to be at-risk for amputation". [31]

[30] *3 did not respond to this question.*

[31] ***VHA DIRECTIVE 2001-030, PRESERVATION-AMPUTATION CARE AND TREATMENT (PACT) PROGRAM, Department of Veterans Affairs, May 11, 2001.***

Questions 19A and 19B were tabulated. The findings of these two questions are presented in the table below.

QUESTION	# (%) OF RESPONDENTS	
	YES	NO
Is your facility reviewed as part of the EPRP process?[32]	86 (78%)	24 (22%)
If yes, are the results of the EPRP process shared with your facility?	82 (96%)	3 (4%)

[32] *5 facilities did not respond to this question*

VI. Facility Ranking – PACT Program Implementation

The Booz Allen team determined the level of implementation of the PACT Directive based on VAMCs responses to selected survey questions

Booz Allen team members analyzed results of the PACT survey to determine level of PACT Program implementation at each VA medical center. PACT survey questions were designed to identify whether facilities were complying with specific requirements addressed in the PACT Program VHA directive. These questions, listed in Table 2, identified facilities that met the following requirements: establishment of a program for treating patients at-risk for limb loss and patients with an amputation, patient screening, development and utilization of clinical guidelines, data tracking, assignment of risk level, review of outcome data, and designation of a PACT Coordinator. Table 2 also presents the number and percentage of facility respondents that answered positively to having incorporated these requirements.

Table 2. Criteria in PACT Directive Related to Level of Implementation and Results [33]

Questions From Internet survey	Number	Percentage
2a. Program related to treatment of patients at-risk for amputations and patients who have had amputations *PACT Program*	**77/109**	**71%**
Other Process	**43/68**	**63**
3a4. PACT team provides screening, monitoring and follow-up services on all amputation related prevention and follow-ups.	**53/113**	**47%**
3a6. PACT Coordinator with major responsibilities, i.e. screen, refer and coordinate services for patients	**51/113**	**45%**
3b4. PACT team provides screening to identify and monitor patients **at-risk for amputation**, then, if necessary, refer them to the appropriate physicians for further follow-ups	**82/99**	**83%**
4a. Utilization of clinical guidelines	**65/109**	**60%**
4b. Identification method for all patients who enter the health system who may be considered "at-risk" for amputation	**62/112**	**55%**
4c. Tracking method for all patients who enter the health system who may be considered "at-risk" for amputation	**38/110**	**35%**
4d. Assign risk-assessment level for "at-risk" patients	**60/111**	**53%**
11a. Formal guidelines related to foot checks and foot screenings	**105/115**	**91%**
14a. Process for tracking data for all **patients at-risk for limb loss** from the day of entry into the VA health care system, through all levels of care, until discharged back into the community	**97/115**	**84%**
15a. Process for tracking data for all **patients with amputations** from the day of entry into the VA health care system, through all levels of care, until discharged back into the community	**42/114**	**37%**
16a. Evaluate annually the outcomes of the PACT Program	**30/114**	**26%**

[33] *There were 115 responses to the Internet survey. The denominator used for each question varies due to the inconsistency of responses.*

The survey methodology used to rank VA facilities on PACT Program implementation can only identify formal processes, procedures, and policies established for the PACT Program. Survey methodology does not account for informal activities, organizational structures, etc. that may influence program effectiveness. For example, on a site visit to the Seattle VAMC, Booz Allen team members recognized a strong facility emphasis on PACT related activities and VA staff that were dedicated and passionate regarding the treatment of at-risk patients and patients with amputations. Based on observations from the site visit, the Booz Allen team noted the Seattle VAMC had a strong program for treatment of PACT patients. However, because Seattle VAMC did not have all the formal policies and procedures in place the facility ranked moderate on our survey.

A complete evaluation of facilities for PACT activities would require reviewers to perform site visits to evaluate both formal and informal processes, procedures, and staffing. Critical factors of success for programs rely on the characteristics of program leadership, which is best evaluated by observation. In conclusion, some facilities in our ranking may have strong programs for treatment of at-risk patients and patients with amputations, but may receive a lower ranking from the survey because formal processes and procedures were not documented, were identified with different operational definitions compared to the survey language, or other unidentified reasons.

Six categories were formed from the survey questions to rank the "level of implementation"

Survey questions related to implementation cannot be considered independent of each other, so for the purpose of establishing PACT Program implementation, questions were grouped into six categories. Each category contains one or more survey questions that have been identified as clinically important or statistically significant related to PACT Program implementation. Table 3, on the next page, presents the categories and associated survey questions used for point generation.

Each facility was assigned a "level of implementation"; high, moderate, or low

Facilities were ranked in one of three levels (high, moderate, and low) of PACT Program implementation based on the number of points obtained. A point was awarded if a category was "met". In order for a category to be "met", only one survey question within the category needed to be answered positively. A total of six points were possible. Facilities with 5 or 6 points were labeled "high", facilities with 3 or 4 points were labeled "moderate", and facilities with 2 or fewer points were labeled "low".

Of the 118 surveys received, three duplicate surveys were removed leaving 115 unique responses. 33 facilities (29%) were ranked low, 47 (41%) were ranked moderate, and 35 (30%) were ranked high for successful PACT Program implementation. Table 4 summarizes the facilities by level of implementation.

Table 3. Survey Questions Used to Develop Constructs

POINTS	QUESTIONS PER CONSTRUCT
1	**Assigns Risk Level for At-risk Patients** • Does your facility assign risk-assessment level for "at-risk" patients? (Question 4d)
1	**Has PACT Coordinator:** • We have a PACT Coordinator with major responsibilities, i.e. screen, refer and coordinate services for patients. (Question 3a6)
1	**Clinical Guidelines:** • Does your facility have formal guidelines related to foot checks and foot screenings? (Question 11a) • Does your facility have clinical guidelines? (Question 4a)
1	**Tracking Data:** • Does your facility have a tracking method for all patients who enter the health system who may be considered "at-risk" for amputation? (Question 4c) • Is there a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community? (Question 14a) • Is there a process for tracking data for all patients with amputations from the day of entry into the VA health care system, through all levels of care, until discharged back into the community? (Question 15a)
1	**Tracks Outcomes Data:** • Does your facility evaluate annually the outcomes of the PACT Program? (Question 16a)
1	**Screens Patients:** • Our PACT specialized team provides screening, monitoring and follow-up services on all amputation related prevention and follow-ups. (Question 3a4) • Provide screening to identify and monitor patients at-risk for amputation, then, if necessary, refer them to the appropriate physicians for further follow-ups. (Question 3b4) • Does your facility have an identification method for all patients who enter the health system who may be considered "at-risk" for amputation? (Question 4b)
Total Possible=6	

Table 4. VA Facilities and Level of PACT Directive Implementation

LEVEL OF IMPLEMENTATION			
HIGH			
• Asheville, NC • Beckley, WV • Boise, ID • Boston HCS • Charleston, SC • Cleveland (Wade Park), OH • Columbia, SC • Dallas, TX • Dayton, OH • Durham, NC • Hampton, VA • Houston, TX	• Jackson, MS • Little Rock, AR • Loma Linda, CA • Madison, WI • Memphis, TN • Middle Tennessee HCS (Nashville) • Minneapolis, MN	• Montgomery, AL • New York Harbor • North Chicago, IL • North Florida/South ern Georgia HCS • Northport, NY • Pittsburgh, PA • South Arizona HCS	• Salem, VA • Salt Lake City HCS • San Antonio, TX • San Diego, CA • San Juan, PR • Sheridan, WY • Temple, TX • White River Junction, VT • Wilkes Barre, PA
MODERATE			
• Alexandria, LA • Battle Creek, MI • Bedford, MA • Birmingham, AL • Bronx, NY • Cheyenne, WY • Clarksburg, WV • Coatesville, PA • Connecticut HCS • Denver, CO • Detroit, MI • Dublin, GA • Fayetteville, NC • Gulf Coast HCS (Biloxi)	• Hines • Hudson Valley HCS • Huntington, WV • Illiana HCS (Danville), IL • Indianapolis, IN • Iowa City Division • Lexington-Leestown, KY • Louisville, KY • Manchester, NH • Martinsburg, WV	• Milwaukee, WI • Mountain Home, TN • Muskogee, OK • New Jersey HCS • New Orleans, LA • Oklahoma City, OK • Omaha, NE • Philadelphia, PA • Phoenix, AR • Providence, RI	• Roseburg, OR • Saginaw, MI • San Francisco, CA • Seattle, WA • Southern Colorado HCS • St. Louis, MO • Tampa, FL • Togus, ME • Tomah, WI • Tuscaloosa, AL • West Palm Beach, FL • White City, VA • Wilmington, DE
LOW			
• Albany, NY • Amarillo HCS • Augusta, GA • Canandaigua, NY • Central Iowa HCS • Chicago HCS • Chillicothe, OH • Cincinnati, OH • Decatur, GA	• El Paso, TX • Fargo, ND • Fayetteville, AR • Grand Island, NE • Grand Junction, CO • Honolulu, HI • Iron Mountain, MI • Lincoln, NE	• Maryland HCS • Miami, FL • Montana HCS • New Mexico HCS • North California HCS • Northampton, MA • Portland, OR	• Shreveport, LA • Sierra Nevada HCS (Reno) • Sioux Falls, SD • Southern Nevada HCS • Spokane, WA • St. Cloud, MN • Walla Walla, WA • West Texas HCS • Wichita, KS

VII. Conclusions

The Booz Allen team came to several conclusions after conducting the internet survey, completing site visits and reviewing literature for lead practices

VAMCs have implemented the PACT Program differently at each site

There was evidence from both site visits and the internet survey that (1) the PACT Directive has been interpreted inconsistently across VA facilities, (2) facilities have chosen to emphasize different aspects of the PACT directive, (3) facilities have adapted design, measurement, outcomes, and accountability elements to address their local needs, and (4) the coordinator's role has been interpreted and implemented considerably different across facilities. Site visits revealed that treatment of patients at-risk for limb loss and with amputations is implemented using various structures and processes. Survey results indicated that facilities have implemented different criteria in the PACT Directive.

Facilities that have a dedicated PACT Coordinator have more fully implemented programs

Facilities that have designated a dedicated staff member as the PACT Coordinator have a higher level of implementation of the PACT Program, as evidenced by both the site visits and the internet survey. This is possibly attributable to better coordination of care among disciplines and closer monitoring of patient status. During site visits, the Booz Allen team recognized that dedicated PACT Coordinators instituted a variety of preventive approaches and treatments and typically have systems in place to assess and track patients. Survey results showed that facilities with a dedicated PACT Coordinator had a higher level of implementation of the PACT guidelines as written in the PACT Directive.

Practitioners and literature reviews suggest using multiple measures to understand performance of treatment of at-risk patients and those with amputations

Functional outcome measures are used to assess patient specific outcomes, determine the appropriateness of care, and to gauge the performance of the PACT Program. Many VA facilities utilize functional outcome measures such as the Functional Status Outcomes Database (FSOD), which includes the Functional Independence Measure (FIM). FIM is a widely accepted clinical assessment tool for rehabilitation patients. However, staff at VAMCs and other practitioners has cautioned the use of FIM to assess patients with prosthetic limbs because the tool does not capture the specific needs of prosthetic users. The majority of VA facilities also state they utilize External Peer Review Process (EPRP) as a method of reviewing performance. EPRP captures specific data from chart reviews as well as tracks amputation rates of facilities. Again, VA staff and other practitioners caution the use of amputation rates as the only indicator of performance and suggest using multiple performance measures to assess the impact of PACT activities.

A substantial number of facilities do not obtain or track outcome related measures for their patients

There are still a high number of VA facilities that do not utilize functional outcome measures to assess the impact of treating patients at-risk for limb loss and with amputations. Survey results indicate that many facilities do not have identification and tracking methods for patients who enter the health care system and may be at-risk for amputation. Many facilities indicated that they did not assign risk assessment levels for at-risk patients. Many facilities also reported that they do not gather data to track patient outcomes in the FSOD. The majority of facilities reported that they utilize general patient satisfaction surveys on an annual basis, although not specific to PACT related activities.

The number of years a PACT Program has been in existence does not influence the level of PACT Program implementation

The Booz Allen team expected to find a relationship between the number of years that a PACT Program has been in existence and its level of implementation, yet after analyzing survey results we concluded that there is no direct relationship. Progress of PACT Program development may be impeded because of competing priorities at a given VAMC. Another barrier may be the absence of a dedicated PACT Coordinator and therefore a lack of accountability for program performance. Some facilities have implemented aspects of the PACT Directive, but have left out other significant components. For example, Hines was functioning fully in the treatment of patients with amputations, but were not meeting the guidelines related to patients at-risk for amputations. Hines was an original pilot site for the STAMP program, which may have steered the facility to focus on patients with amputations.

Awareness of PACT Directive 2001-030 is <u>not</u> related to the level of PACT implementation

The Booz Allen team created a methodology to rank VA facilities in regards to their level of PACT implementation then analyzed the ranked facilities to their stated awareness of the PACT directive. Facilities that noted in the survey they were aware of PACT Directive 2001-030 <u>do not</u> have a higher level of implementation of the guidelines.

The guidelines in the PACT Directive are similar to leading practices identified in the literature review on the treatment of patients at-risk for amputation and patients with amputations

Literature review findings support a proactive, multidisciplinary approach to identify and track at-risk and post-amputation patients and to monitor clinical progress via information technology systems. According to literature review, the cost of care for patients with diabetes in the Medicare population is significantly higher due to the complexity of co-morbidities similar to the VA population. The VHA Directive reflects what the literature is supporting by mandating that PACT Programs be interdisciplinary, proactively coordinate care, and measure outcomes of care provided to PACT patients and conduct annual program evaluations.

VIII. Recommendations

Booz Allen developed recommendations to help VA gain additional effectiveness of the PACT Program

After careful consideration of the findings from the PACT Study, Booz Allen developed several conclusions regarding the implementation of the VHA PACT Directive across VAMCs. The VHA PACT Directive has been interpreted inconsistently and implemented differently across VAMCs. Several of the major variances in program implementation are listed below.

- Facilities have chosen to emphasize different aspects of the PACT directive
- Facilities have adapted design, measurement, outcomes, and accountability elements to address their local needs
- The coordinator role has been interpreted and implemented differently across facilities

Booz Allen also determined that the PACT Directive is only partially implemented at the majority of VAMCs and there is a lack of program oversight at a national level.

Booz Allen developed multiple recommendations for VHA to ensure successful implementation and operation of the PACT Program nationwide. These recommendations are related to a functional organizational structure, characteristics of key personnel on the PACT team, training and information dissemination, performance measures, clinical guideline applications, management tools and utilization of an expert multidisciplinary panel. If implemented, these activities should facilitate the communication process between the PACT teams, and among others who are critical to the success of the program. These recommendations should also facilitate the standardization of data collection processes for more uniform performance measurement and clinical outcomes measurement related to the PACT Program.

The functional organizational structure recommended includes a new role, the National PACT Lead, to coordinate processes related to the treatment protocols for patients at-risk for amputation as well as those with amputations

Booz Allen recommends that VA create a National PACT Lead position to improve oversight and communication necessary to coordinate the PACT Program. The functional organizational structure described is not a traditional organizational chart, but a structure to facilitate communication and activities among PACT team members. This functional chart will lead to increased attention to the clinical oversight and clinical outcomes fundamental to the PACT Program.

We recommend that key individuals involved in the PACT Program at a national level meet on a regular basis to ensure appropriate and consistent PACT Program implementation, review performance measures, and develop related policy guidelines. The Chief Consultant of Patient Care Service, Director of Primary Care, National PACT Lead and Central Office representatives from PSAS, Podiatry, Primary Care, PM&R, Endocrinology, Vascular Surgery and Orthopedic Surgery should meet on a quarterly basis to develop the appropriate data and reports of overall and network specific information. Central Office representatives from the disciplines involved in the PACT Program should meet monthly in-person or via teleconference.

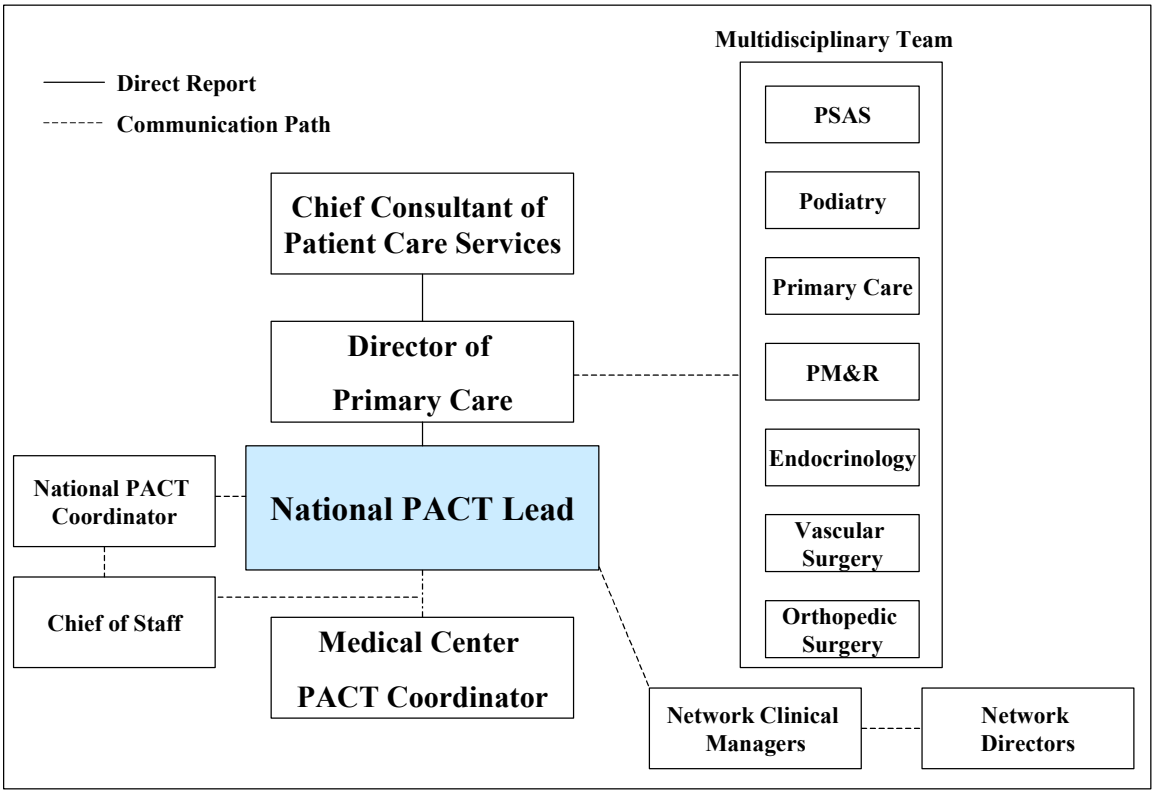
A National PACT Lead position has been proposed to lead the PACT Program nationwide. This person should report information and discuss key decisions regarding the PACT Program with the Chief

Consultant, Primary and Ambulatory Care Services. At the Central Office level, Primary and Ambulatory Care Services is recommended to oversee the PACT Program because the program emphasis is primarily preventive in nature. In addition, Primary and Ambulatory Care Services serves as a gatekeeper for the patients' initial contact for medical care and referrals to specialty care. Therefore, Primary and Ambulatory Care Services has a good position to understand and coordinate care for patients at-risk for limb loss and patients who have had an amputation.

Since many PACT Programs at a medical center level are operating under a variety of organizational alignments, we recommend that local management determine the local leadership at each VAMC. Similarly, the local PACT Coordinator could be aligned with a variety of appropriate organizational entities. At the medical center level, PM&R should continue to be a primary team player in PACT oversight along with Podiatry, Primary Care, Endocrinology, and Orthopedic and Vascular Surgery. Staff from each of these services plays a vital role in the care and treatment of patients at-risk for amputation and their involvement is necessary for the success of the Program across the continuum of care.

In summary, each member involved is critical in the overall communication process to improve the PACT Program. The functional organization structure is displayed in Figure 1:

Figure 1: Functional Organization Structure



The PACT team is comprised of several essential team members to accomplish the goals of the PACT Program

The PACT team members fundamental to the PACT Program include the Chief of Staff at each medical center, the National PACT Lead, the National PACT Coordinator, the PACT Coordinators from each VAMC, the Network Directors, Network Clinical Managers, and the Chief Consultants and/or Director from each discipline.

The **Chief of Staff** should continue to be responsible for annually evaluating the outcomes of the PACT Program, including a review of local facility and network amputation rates for both diabetic and non-diabetic populations. The Chief of Staff at each medical center should periodically meet with and review performance measures data with the PACT Coordinator.

The **National PACT Lead** should have a clinical background to effectively coordinate treatment protocols for prevention and those related to patients with amputations. The lead should assess the overall impact of the PACT Program by coordinating treatment with Chief Consultants/Directors from related disciplines including PSAS, Podiatry, Primary Care, PM&R, Endocrinology, Vascular Surgery and Orthopedic Surgery. In addition to coordinating with these clinical leaders, the National PACT Lead should have responsibility for overseeing the PACT Program, developing clinical pathways, creating quality indicators of care, reinforcing performance measures and recognizing lead practices. Another fundamental role of the National PACT Lead is to continue the annual reporting of EPRP compliance with early identification and referral of patients found to be at-risk for amputation. The National PACT Lead should coordinate with the PM&R to satisfy these requirements, as they have a strong willingness to be integrally involved.

The **National PACT Coordinator** would serve as the support role and program analyst to the National PACT Lead. The National PACT Coordinator should collect and analyze applicable data from each VISN and VAMC, coordinate with the National PACT Lead, and disseminate necessary information. In addition, the National PACT Coordinator should coordinate with the Network Clinical Managers, and if necessary the VAMC PACT Coordinators, to collect data.

The VAMC **PACT Coordinator** should have a clinical background to effectively coordinate treatment protocols for prevention and those related to patients with amputations. Since Booz Allen concluded that facilities that have a dedicated PACT Coordinator have more fully implemented programs, each facility should have a dedicated FTE to coordinate PACT activities. These individuals should have clinical responsibility around PACT activities. Each PACT Coordinator should institute a variety of preventive approaches and treatments, and maintain systems to assess and track patients.

The **Network Directors** should continue to review the performance of their networks in comparison with national rates and for objectively defining any further evaluation and restructuring of local PACT initiatives. Each Network Director should coordinate with the National PACT Lead who then will disseminate information to the Medical Center PACT Coordinators. The **Network Clinical Mangers** should provide data to the Network Director.

The **Chief Consultant of PSAS** should continue to assess the effectiveness of prosthetic delivery and patient satisfaction, disseminate and assess prosthetic information and training needs to local prosthetic services. The information collected should be shared with the National PACT Coordinator who will then inform the National PACT Lead as necessary.

The **Chief Consultants/Directors** from each critical discipline should continue to communicate and update the appropriate team members of issues and further advances in clinical protocols. In addition, these members should meet monthly in-person or via teleconference to satisfy these requirements. In collaboration with the Director, VHA Headquarters, Podiatry Service and others from critical disciplines, the Chief Consultants will continue to be responsible for the oversight of the PACT Program, development of clinical pathways, quality indicators and performance measures. Specifically, central office staff in PM&R should continue to provide guidance on the rehabilitation aspects of the PACT Program.

In summary, these recommendations for the key positions of the PACT Program should facilitate oversight and consistent implementation of the PACT Program guidelines outlined in the PACT Directive.

Training, education and information dissemination to VA staff is critical to create uniform practices in a decentralized system

VA should utilize several communication vehicles to disseminate critical information needed to create continuity for those being trained in VAMCs on PACT Program and guidelines. VA experiences significant issues in disseminating training information since providers frequently change and the health system has become increasingly decentralized. The training information should address protocols related to vascular and neurological conditions, wound care, shoe evaluation and additional areas related to the treatment of patients at-risk for amputation and those with amputations. These practices should ensure that screening is being performed properly and thoroughly throughout the VA system.

These vehicles should be developed for all trainees, including interns, medical students, residents and new clinical staff, to utilize these practices. For example, Jeffrey M. Robbins, DPM created a CD-ROM that will be used to disseminate training information. Other mechanisms of disseminating this information include satellite training, internet/intranet sites, and video training. These mechanisms can assist in training and education by presenting the following information related to the PACT Program:

- ✓ Clinical algorithms associated with risk scores
- ✓ Utilization of CPRS and the clinical reminder system
- ✓ Appropriate use of risk levels and risk assessment
- ✓ Appropriate referral process to specialty care
- ✓ Lead practices from other VA and private sector facilities
- ✓ Relevant literature

In brief, several communication vehicles should be utilized to disseminate PACT information across VA MCs.

VA should use multiple measures to understand performance of treatment of at-risk patients and those with amputations

The National PACT Lead and VAMC PACT Coordinators should evaluate the program using multiple assessment tools that capture the clinician's perspective and patient feedback regarding functionality and satisfaction of services. Multiple tools are described in the text that follows that could assist VA in evaluating the PACT Program. Functional outcome measures should continue to be used to assess patient specific outcomes and determine the appropriateness of care. VA facilities should continue to utilize External Peer Review Process (EPRP) as a method of reviewing performance. EPRP captures specific data from chart reviews as well as tracks amputation rates of facilities. Facilities staff should administer patient satisfaction surveys to at-risk patients that ask specific questions related to preventative care. Each facility should identify and track patients who enter the health care system and are at-risk for amputation. This could be accomplished through the Clinical Reminder functionality in CPRS or through development of a local excel database.

Patient Self Report

The **SF-36** is established, and has known reliability and validity statistics, is recognized as a "standard" for ambulatory adults participating in inpatient or outpatient rehabilitation or not participating in rehabilitation, and has comparative data sets for comparisons with VA data. Although some constructs

are not as responsive as others, maintaining all constructs allows starting point for describing and comparing VA data while a new tool is developed.

Clinician Assessment

VA facilities should continue to utilize functional outcome measures such as the Functional Status Outcomes Database (**FSOD**), which includes the Functional Independence Measure (**FIM**). FIM is a widely accepted clinical assessment tool for rehabilitation patients. In addition, the FIM is established, and has known reliability and validity statistics, recognized as a "standard" for inpatient rehabilitation and has comparative data sets for comparisons with VA data.

The **Prosthetist assessment** includes the use of items completed by a VAMC or contracted Prosthetist that assesses specific constructs from the perspective of the Prosthetist that have been shown to be discriminating. An example of a Prosthetist assessment is the Orthotics and Prosthetics National Office Outcomes Tool, discussed below. The VA could utilize an existing assessment tool for evaluating patient's with prosthesis or develop a new tool that incorporates the Prosthetist's perspective.

Orthotics & Prosthetics National Office Outcomes Tool (OPOT) is an expansion of the SF-36 with good internal consistency reliability and discriminant validity statistics. The OPOT provides assessment of 1) patient self-report or proxy report of functional abilities of patients, 2) Prosthetist's assessment of patient functioning, and 3) patient satisfaction at two levels, e.g. satisfaction and importance to the patient.

Northwestern University (NU) Prosthetics Tool

The NU Prosthetics Tool is funded by National Institute for Disability and Rehabilitation Research (NIDRR) as part of a Rehabilitation Engineering and Research Center (RERC) grant, the Northwestern University researchers (Drs. Dudley Childress, Allen W. Heinemann) have recently developed a new clinical outcome measure: Orthotics and Prosthetics Users' Survey © "OPUS". This instrument is designed to evaluate the quality and improvement of orthotic and prosthetic (O&P) services. Included in OPUS are functional measures – upper extremity and lower extremity, a health-related quality of life instrument, and satisfaction with device and satisfaction with service measures. The researchers also collect additional data on health histories, clinical objective assessment (ROM, etc.), functional status, and treatment goals.[34]

New VA Outcomes Tool

VA should begin the necessary steps to develop a new tool for their patients with amputations or at-risk for amputation. The new process should take the results from the current Prosthetics and Sensory Aids Services (PSAS) study to:

- Clarify and standardize data collection,
- Improve and standardize the data collected,
- Make current databases easily relational,
- Develop data cleaning processes,
- Use strengths of OPOT and NU tools to modify existing tools, and

[34] ***OPUS Orthotics and Prosthetics Users' Survey. Copyright 2001 © Northwestern University. All Rights Reserved***

- Redesign data collection and reporting processes by making the new tool a computerized adaptive testing (CAT) process.

CAT enables greater precision and efficiency in assessment by first estimating an examinee's clinical condition (typically on the basis of initial item responses) and then adapting to it, presenting only those questions that are expected to give the most information about that individual. CAT mimics what a skilled test administrator does by using algorithms to characterize the test taker after each question and determining the most appropriate question to administer next. A CAT outcomes tool will:

- Contain more pertinent and consistent demographic data of VA patients,
- Retain the strengths of the old outcomes tools,
- Improve the responsiveness, precision and validity of the old instruments,
- Reduce administrative burden associated with data collection, and
- Be programmed to improve with minimal cost and effort as new information is learned, poor questions are deleted or better new questions are developed, and facilitate automated and timely report generation.

Several management tools should be utilized by VA to facilitate success of the PACT Program

VA should use several management tools to maximize the quality and achievement of the PACT Program at each VAMC. Booz Allen recommends VA should utilize the Clinical Reminder software package in CPRS, administer evaluation reports annually, direct a survey to the Chief of Staff every two years, and maintain PACT Program Internet and Intranet sites. These tools will further improve each PACT Program, by improving overall communication and increasing quality.

Clinical Reminder Software Package in CPRS

VA facilities should continue to utilize the Clinical Reminder software package in CPRS to identify and monitor services provided to veterans. The Clinical Reminder Software Package in the Computerized Patient Record System (CPRS) is currently mandatory for all facilities. During site visits conducted in early 2002, Booz Allen found that facilities utilizing the Clinical Reminder Software Package had the ability to track and prompt clinicians to conduct regular screenings, necessary diagnostic tests, and education activities. This tool is used to track and improve preventive health care for patients, by electronically reminding VA practitioners that the clinician should perform specific actions. A clinical reminder uses a patient's age, sex, and medical history when evaluating when care was last given, when it is due next, and specific details about why the patient should or should not receive the care. Reminders can be defined to apply to all patients or to patients who have specific clinical findings.[35] In summary, VA Medical Centers should implement and/or continue utilizing the clinical reminder system in CPRS to assist the treatment of patients at-risk for limb loss and patients with amputations.

Annual Evaluation Reports

Evaluation reports provided on an annual basis would assist the functional PACT team at Central Office in overseeing clinical and service quality. The PACT Directive conveys the rationale for and general elements of PACT Programs throughout VA system. Furthermore, it provides specific guidance on the

35 ***Computerized Patient Record System Product Line,*** *Veterans Health Information Systems and Technology Architecture (VISTA) Getting Started. April 1999.*

care and treatment of patients at-risk for limb loss and those with amputations incorporating inter-disciplinary coordination of surgery, podiatry, rehabilitation, therapy, nursing, social work, primary care, and orthotics/prosthetics throughout patients' encounters with VA. Recognizing that there are regional differences in demographics, VISN size, local capabilities, and staffing, the Directive is not prescriptive about process and allows for decentralized implementation of PACT Programs. As noted in earlier sections, VAMCs tailored their implementation, utilizing varied infrastructures, program designs, clinical processes, and performance measures to their local and regional circumstances.

In assessing the implementation of PACT Programs throughout VA, the Booz Allen team noted varying degrees of implementation, levels of program coordination, and levels of collaboration, and unearthed numerous implementation issues, delivery problems, and lead practices. Accordingly, VA should mandate submission of an enhanced, structured annual performance evaluation from each VAMC, including the following elements:

- Description of implementation of the PACT Directive
- Problems and implementation issues and their resolutions
- Interim program modifications
- Successful programmatic interventions
- Quality activities, and
- Performance measures.

After each VAMC collects the pertinent data elements, the current reports created should be enhanced to accomplish a number of objectives critical to the success of full implementation of the PACT Directive. After the VISN Clinical Manager reviews these reports from the VAMC level, each VISN report should be provided to the National PACT Lead for review.

Assessment of Implementation

A formal mandatory annual report would provide detailed information to Central Office, allowing for meaningful comparisons of system-wide implementation, identification of barriers and obstacles to implementation, and definition of areas needing further communication and clarification. This would inform Central Office of common issues in facilities and potential strategies that individual facilities found successful in resolving those issues.

Lead Practices Identification

Central Office can leverage the opportunity to identify lead practices in the field, thereby providing VA with a vehicle to focus on and disseminate optimal processes, practices, indicators, and publications to other VAMCs.

Improvement of Coordination and Communication

VAMCs employ a variety of customized mechanisms to operate and coordinate their PACT Programs. Some facilities have formally titled PACT Coordinators, while others diffuse that function among a number of individuals. Individuals assume the coordinator function with differing expertise ranging from primary care nursing to podiatry to rehabilitation and, according to 16% of survey respondents, no single individual identified as filling the coordinator function.

The requirement to complete and submit an improved program evaluation would induce formal and *de facto* PACT Coordinators to reassess their programs at least annually, reviewing compliance with the PACT Directive and the adequacy of communication, collaborative efforts, data sources, and quality and performance measures within their programs.

Reinforcement of Quality and Performance Measures

The Booz Allen team learned that VAMCs differ in their use of quality indicators and performance measures. Some facilities emphasize service and process measures, indicating their level of compliance with predefined processes; others attempt to focus on clinical quality and patient outcomes.

A requirement to complete and submit an enhanced program review on an annual basis would include assessments of process measures, patient satisfaction, and clinical quality and outcomes would induce formal and *de facto* PACT Coordinators to reassess their programs to determine:

- Appropriate measures for their particular veteran population and their provided services,
- System barriers to collecting information for such measures, and
- Optimal data-gathering processes to submit the required information.

This annual report process would have the major advantages of standardizing information flow, communication, and quality and performance reporting, as well as emphasizing the importance of quality and patient satisfaction, while retaining the necessary decentralized management of PACT Programs.

Survey

Every VAMC should be surveyed every two years to evaluate the PACT Program's level of implementation according the most recent PACT Directive. The survey should include questions related to the guidelines in the PACT Directive. These questions are outlined in Table 5 on the following page.

Table 5. Internet Survey Questions Related to Level of Implementation of the PACT Program

Does your facility have a program related to treatment of patients at-risk for amputation and patients who have had amputations, i.e., PACT Program, or another process to identify and track patients at-risk for limb loss or amputation?
Does your PACT specialized team provide screening, monitoring and follow-up services on all amputation related prevention and follow-ups?
Does your facility have a PACT Coordinator with major responsibilities? i.e., screen, refer, and coordinate services for patients
Does your facility provide: ✓ outpatient service? ✓ services to both in-patients and ambulatory patients at your facility? ✓ amputation-related follow-up services, e.g., monitoring dressing, tissue recovering, and/or prosthesis fitting and management? ✓ screening to identify and monitor patients at-risk for amputation, then, if necessary, refer them to the appropriate physicians for further follow-ups?
Does your facility have the following regarding the treatment of patients at-risk for amputation: ✓ Clinical Guideline? ✓ Identification method for all patients who enter the health system who may be considered “at-risk” for amputation? ✓ Tracking method for all patients who enter the health system who may be considered “at-risk” for amputation? ✓ Assignment of a risk-assessment level for “at-risk” patients?
Does your facility have formal guidelines related to foot checks and foot screenings?
Is there a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community?
Does your facility evaluate annually the outcomes of the PACT Program?

Each question was originally posed to the Chief of Staff in the VA Internet survey related to treatment of patients at-risk for amputation and patients who have had an amputation administered by Booz Allen in February 2002.

Internet/Intranet Website

The National PACT Lead and National PACT Coordinator should maintain and expand both VA intranet and internet sites for all those involved in the PACT Program to reference information related to continuous improvement of the PACT Program including:

- Current Research
- Health Indicators and Statistics
- Education Materials
- Lead Practices
- Industry Standards

This site should also have links to related activities occurring in the public and private sectors, as well as sites within VA related to the treatment of patients at-risk for limb loss and patients with amputations.

VA should consider convening an expert multidisciplinary panel to determine desirable clinical goals and outcomes for its quality programs

A critical part of VA's mission addresses improvement of the lives and health of veterans, and VA has strived to both develop programs to accomplish these goals and indicators to measure its own success in meeting those goals.
The Booz Allen team concluded, from both site visits and the PACT Internet survey, that VAMCs differ significantly in their reporting of clinical quality and outcomes measures. The following examples were noted earlier:

- Amputation rates were the most commonly mentioned indicator of performance,
- VA principal outcome measures track prosthetics/orthotics indicators, rather than pre-surgical outcomes as measures of performance, thereby not emphasizing the prevention objectives of the PACT Program,
- 74% of survey respondents stated their facility does not annually evaluate outcomes of their PACT Program, and
- 88% of survey respondents stated their facility does not evaluate patient satisfaction with the PACT Program at least annually.

Maximal conformance with VA mission through implementation of the PACT Directive relies, to a great extent, on the availability of appropriate preventive performance measures, including service quality, patient satisfaction, and clinical quality and patient outcomes. There are a number of potential reasons for the non-universal availability of such performance measures, including systems and manpower issues, determination of customized measures at local and regional levels, and incomplete understanding of measures that would be useful on a system-wide level.

Accordingly, the Booz Allen team recommends that VA convene an expert multidisciplinary panel to determine desirable system-wide patient satisfaction and clinical goals and outcome measures through a consensus conference. The panel may include representatives from Primary Care, Endocrinology, Podiatry, Vascular Surgery or Medicine, Nursing, PM&R, PSAS, and Social Work.

The panel would be charged with the responsibility of defining obligatory outcome measures that would simultaneously determine optimal levels of care and allow VA to invest its advisory and consulting resources to improvement of quality and patient satisfaction.

The panel would, in particular, define preventive measures of PACT Program success, including:

- Guidelines for, and indicators of, appropriate timing of amputation, so that patients receive limb preservation education and support until such time that they do require surgery;
- Measures that sub-categorize amputations, mindful that certain limited amputations reflect PACT success by preventing major limb amputations; and
- Widely accepted functional measures, such as FIM and SF-36v scores, allowing for documentation of PACT Program success, modifications (when necessary) of clinical algorithms and guidelines, and comparisons of each VAMC PACT Programs.

Recognizing that VAMCs vary in size, patient populations, professional staff, and resources, the panel may be requested to develop a graduated set of PACT performance measures, including:

- A universal tier of clinical and non-clinical performance measures, including process, outcome, and patient satisfaction indicators deemed critical by Central Office for all VAMCs;
- An array of performance measures determined by each VAMC, in accordance with the needs of its specific patient population and the services provided; and
- A third tier of performance measures tracked by each VAMC department having a role in the PACT Program.

In conclusion, these recommendations are designed to facilitate oversight and communication between the PACT teams and others who are also critical to the communication process, as well as create uniformity and consistency among all PACT Programs.

Appendix A—
Survey Instrument

Appendix B—
Results of the Survey (Raw Data)

Appendix C—
Methodology for PACT Ranking

Development of Implementation Variable

Booz Allen determined the "level of implementation" of the PACT Directive based on VAMC responses to selected survey questions

Booz Allen performed comparative analysis of survey results based on the level of PACT Program implementation. Since "level of implementation" was not a survey question, this variable had to be calculated based on survey responses. We used statistical methods and clinical judgment to create this variable. Statistical tests used for this analysis measured the relationship between survey questions.

Analysis of the relationship between survey questions produced a level of implementation scale by which all VAMCs could be categorized

The first step in our process for creating the "level of implementation" variable was to identify survey questions that shared a relationship with question 2a; "Does your facility have a program related to treatment of patients at-risk for amputation and patients who have had amputations, i.e. PACT Program, or another process to identify and track patients at-risk for limb loss or amputation?" This analysis produced six survey questions that were related to question 2a. Facilities that responded positively to question 2a (yes, they have a PACT Program) were more likely to respond positively to the six survey questions presented in the table below.

Table 6. Survey Questions Related to Level of Implementation

SURVEY QUESTIONS
4d. Does your facility assign risk-assessment level for "at-risk" patients?
3a6. We have a PACT coordinator with major responsibilities, i.e. screen, refer and coordinate services for patients.
11a. Does your facility have formal guidelines related to foot checks and foot screenings?
14a. Is there a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community?
15a. Is there a process for tracking data for all patients with amputations from the day of entry into the VA health care system, through all levels of care, until discharged back into the community?
16a. Does your facility evaluate annually the outcomes of the PACT Program?

These six questions represent five constructs: "having clinical guidelines", "tracking data", "assigning risk level", "outcome data", and "having a PACT coordinator".

Booz Allen also used "clinically important" survey questions to develop the "level of implementation" variable

Booz Allen also exercised its clinical expertise and programmatic understanding in identifying additional questions that we felt were necessary components of a PACT Program. This analysis was performed by clinically educated team members and further supported by the information Booz Allen gathered from our

site visits. Overall, five additional questions were highlighted. It is believed that these five questions, presented in Table 7, are indicative of a functioning PACT Program. The five additional questions represent three constructs; "screening patients", "having clinical guidelines", and "tracking data."

Table 7. Clinically Important Questions

ADDITIONAL QUESTIONS
3a4. Our PACT specialized team provides screening, monitoring and follow-up services on all amputation related prevention and follow-ups.
3b4. Our PACT Program provides screening to identify and monitor patients at-risk for amputation, then, if necessary, refer them to the appropriate physicians for further follow-ups.
4a. Does your facility have clinical guidelines?
4b. Does your facility have an identification method for all patients who enter the health system who may be considered "at-risk" for amputation?
4c. Does your facility have a tracking method for all patients who enter the health system who may be considered "at-risk" for amputation?

A total of eleven survey questions were condensed to form six constructs related to "level of implementation"

None of the eleven questions identified can be considered independently, so for the purpose of establishing categories of PACT Program implementation, questions have been grouped into six constructs. Each construct contains one or more survey questions that have been identified as clinically important or statistically significant related to PACT Program implementation.

Our categorization of the facilities includes three levels (high, moderate, and low). A facilities' score is based on how many constructs a facility has met. In order for a construct to be "met", only one survey question within the construct needs to be answered positively. For each construct met by a facility, one point is added. A total of six points are possible. Facilities with 5 or 6 points are labeled "high". Facilities with 3 or 4 points are labeled "moderate". Facilities with 2 or fewer points are labeled "low". Table 8 presents the constructs used and the survey questions that represent the constructs.

Table 8. Construct Definition

POINTS	QUESTIONS PER CONSTRUCT
1	**Assigns Risk Level for At-risk Patients** • Does your facility assign risk-assessment level for "at-risk" patients? (question 4d)
1	**Has PACT Coordinator:** • We have a PACT coordinator with major responsibilities, i.e. screen, refer and coordinate services for patients. (question 3a6)
1	**Clinical Guidelines:** • Does your facility have formal guidelines related to foot checks and foot screenings? (question 11a) • Does your facility have clinical guidelines? (question 4a)
1	**Tracking Data:** • Does your facility have a tracking method for all patients who enter the health system who may be considered "at-risk" for amputation? (question 4c) • Is there a process for tracking data for all patients at-risk for limb loss from the day of entry into the VA health care system, through all levels of care, until discharged back into the community? (question 14a) • Is there a process for tracking data for all patients with amputations from the day of entry into the VA health care system, through all levels of care, until discharged back into the community? (question 15a)
1	**Tracks Outcomes Data:** • Does your facility evaluate annually the outcomes of the PACT Program? (question 16a)
1	**Screens Patients:** • Our PACT specialized team provides screening, monitoring and follow-up services on all amputation related prevention and follow-ups. (question 3a4) • Provide screening to identify and monitor patients at-risk for amputation, then, if necessary, refer them to the appropriate physicians for further follow-ups. (question 3b4) • Does your facility have an identification method for all patients who enter the health system who may be considered "at-risk" for amputation? (question 4b)
Total Possible=6	

Each facility was assigned a "level of implementation"; high, moderate, or low

Of the 118 surveys received, three duplicate surveys were removed leaving 115 unique responses. 33 facilities (29%) were ranked low, 47 (41%) were ranked moderate, and 35 (30%) were ranked high for successful PACT Program implementation.

Booz Allen conducted further statistical analysis to determine the relationship between "level of implementation" and several other variables

Based on the categorization of VAMC into these groups (high, moderate, or low), we calculated chi-squares to determine if our observed results were different than would be expected for three survey questions. For each question we hypothesized no relationship with level of implementation, and we conducted a chi square test of independence.

Analysis of Implementation Variable

Awareness of PACT Directive 2001-030 is not related to "level of implementation"

The first question of interest was item one, "is your facility aware of PACT Directive 2001-030?" Our expected frequencies are based on our hypothesis of no relation between awareness of the PACT directive and the level of implementation and calculated based on the actual distribution we obtained. The chi-square measures the difference between our expected and observed frequencies.

	Implementation Ranking			
Awareness of PACT	High	Moderate	Low	Totals
Yes	34 (31.84)	42 (40)	24 (28.2)	101
No	1 (3.15)	3 (4.05)	6 (2.79)	10
Totals	35	45	31	111

Observed frequency (Expected frequency)

Results produced a chi-square of 5.96. This value does not exceed the threshold established prior to conducting the test (5.99 alpha = .05, degrees of freedom = 2), and does not allow the Booz Allen team to reject the null hypothesis. Therefore, awareness of the PACT Directive was not related to a facility's implementation of a PACT Program. The majority of respondents indicated that they are aware of the PACT Directive (101), but there is not a strong relationship between the awareness and the level of implementation of the PACT Directive guidelines.

"Level of implementation" was not related to the length of time a PACT Program had been in operation at a VAMC

Our second item of interest is item 2b, "how many years has your program/process for the treatment of patients at-risk for amputation and patients who have had amputations been in existence at your facility?" Once again, we utilized the chi square test of independence to determine if this survey questions was related to a facilities' level of implementation. Our expected frequencies were calculated based on the distribution of survey responses and were analyzed in relation to our observed scores.

	Time in a PACT Program					
Ranking	0-2 yrs	3-4 yrs	5-6 yrs	7-8 yrs	9+ yrs	Total
High	3 (3.74)	5 (4.08)	15 (13.26)	3 (5.10)	8 (8.5)	34
Moderate	4 (4.95)	5 (5.4)	20 (17.55)	8 (6.75)	7 (11.25)	45
Low	4 (2.31)	2 (2.52)	4 (8.19)	3 (1.05)	8 (5.25)	21
Total	11	12	39	15	25	100

Observed frequency (Expected frequency)

We obtained a chi-square of 12.963. This value does not meet the threshold necessary to reject the null hypothesis (15.51 alpha = .05, degrees of freedom = 8). Therefore, the number of years a PACT Program has been in existence does not influence the level of PACT Program implementation.

Having an employee designated as the PACT coordinator was related to a VAMC's "level of implementation"

Our final chi -square looked at the relationship between question 9a, "does your facility have a person designated as the PACT coordinator", and a facilities' level of implementation. We compared our expected frequencies with the observed frequencies to establish any relationship between the two variables.

	Implementation Ranking			
PACT Coordinator	High	Moderate	Low	Totals
Yes	34 (25.13)	29 (31.6)	16 (22.26)	79
No	1 (9.86)	15 (12.4)	15 (8.73)	31
Totals	35	44	31	110

Observed frequency (Expected frequency)

We obtained a chi-square of 18.112. This value exceeds the critical value (5.99 alpha = .05, degrees of freedom = 2), and enables us to reject the null hypothesis. Therefore, having a PACT coordinator is related to a facility's level of implementation of their PACT Program.

Results can be used to inform VA regarding strategies for successful implementation of a PACT Program

The ranking process relied on answers to several survey questions concerning the presence of a PACT Program. Relying on many questions appears to provide a more accurate ranking of overall implementation of a PACT Program compared to asking one question: do you have a PACT Program. However, there appeared to be conflicting responses across several questions, which implies differences in interpretation of the questions or operational definitions of the terms in the questions. The ranking process identified relevant components of the implementation of a PACT Program: having an individual to coordinate the treatment and follow-up of at-risk patients, assignment of risk level/index, having clinical guidelines for the implementation of the process, tracking at-risk patients and tracking outcomes all positively contribute to the success of a PACT (or PACT equivalent) program. We believe these results can also help identify the needs or gaps at the individual facility level and suggest strategies to improve PACT Program implementation.

Appendix D—
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Appendix E—
VAMC Response to the PACT Internet Survey

VAMC Response to the PACT Internet Survey

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VAMC Albany, NY	2	1	
VAMC Alexandria, LA	16	1	
VAMC Altoona, PA	4		√
VA AMARILLO VA HEALTH CARE SYSTEM	18	1	
VA ALASKA HEALTH CARE SYSTEM & REGIONAL OFFICE	20		√
VA Ann Arbor Health Care System	11		√
VAMC Asheville, NC	6	1	
VAMC Atlanta, GA	7	1	
VAMC Augusta, GA	7	1	
VAMC Battle Creek, MI	11	1	
VAMC Bay Pines, FL	8		√
VAMC Beckley, WV	6	1	
VAMC Bedford, MA	1	1	
VAMC Birmingham, AL	7	1	
VA BLACK HILLS HEALTH CARE SYSTEM -VAMC Fort Meade, SD Division -VAMC Hot Springs, SD Division	23		√
VAMC Boise, ID	20	1	
VA BOSTON HEALTH CARE SYSTEM -VAMC Boston, MA Division -VAMC West Roxbury, MA Division -VAMC Brockton, MA	1	1	
VAMC Bronx, NY	3	1	
VAMC Butler, PA	4		√
VAMC Canandaigua, NY	2	1	

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VA CENTRAL ALABAMA VETERANS HEALTH CARE SYSTEM -VAMC Montgomery, AL Division -VAMC Tuskegee, AL Division	7	1	
VA CENTRAL ARKANSAS VETERANS HEALTHCARE SYSTEM (Little Rock)	16	1	
VA CENTRAL CALIFORNIA HEALTH CARE SYSTEM	21		√
VA CENTRAL IOWA HEALTH CARE SYSTEM -VAMC Des Moines, IA Division -VAMC Iowa City, IA Division -VAMC Knoxville Division, IA	23	2	
VA CENTRAL TEXAS HEALTH CARE SYSTEM -VAMC Temple, TX Division -VAMC Marlin, TX Division -VAMC Waco, TX Division	17	1	
VAMC Charleston, SC	7	1	
VAM/ROC Cheyenne, WY	19	1	
VA CHICAGO HEALTH CARE SYSTEM -VAMC Chicago (Lakeside), IL Division -VAMC Chicago (Westside), IL Division	12	1	
VAMC Chillicothe, OH	10	1	
VAMC Cincinnati, OH	10	1	
VAMC Clarksburg, WV	4	1	
VAMC Cleveland, OH -Wade Park Division -Brecksville Division	10	1	
VAMC Coatesville, PA	4	1	
VAH Columbia, MO	15		√
VHA Columbia, SC	7	1	

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VA CONNECTICUT HEALTH CARE SYSTEM: -VAMC West Haven, CT Division -VAMC Newington, CT Division	1	1	
VAMC Dayton, OH	10	1	
VAMC Denver, CO	19	1	
VAMC Detroit, MI	11	1	
VAMC Dublin, GA	7	1	
VAMC Durham, NC	6	1	
VA EASTERN KANSAS HEALTH CARE SYSTEM -VAMC Leavenworth, KS Division -VAMC Topeka, KS Division	15		√
EL PASO VA HEALTHCARE SYSTEM	18	1	
VAMC Erie, PA	4		√
VAM/ROC Fargo, ND	23	1	
VAMC Fayetteville, AR	16	1	
VAMC Fayetteville, NC	6	1	
VAMC Grand Junction, CO	19	1	
VA GREATER LOS ANGELES HEALTH CARE SYSTEM -VAMC Sepulveda, CA Division -VAMC West Los Angeles, CA Division	22		√
VA GULF COAST VETERANS HEALTHCARE SYSTEM -VAMC Biloxi, MS Division	16	1	
VAMC Hampton, VA	6	1	
VAH Hines, IL	12	1	
VAMROC Honolulu, HI	21	1	
VAMC Houston, TX	16	1	
VA HUDSON VALLEY HEALTH CARE SYSTEM -VAMC Castle Point, NY Division -VAMC Montrose, NY Division	3	1	
VAMC Huntington, WV	9	1	

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VA Illiana Health Care System (Danville)	11	1	
VAMC Indianapolis, IN	11	1	
VAMC Iron Mountain, MI	12	1	
VAMC Jackson, MS	16	1	
VAMC Kansas City, MO	15		√
VAMC Lebanon, PA	4		√
VAMC Lexington, KY	9	1	
VAMC Loma Linda, CA	22	1	
VA LONG BEACH HEALTH CARE SYSTEM	22		√
VAMC Louisville, KY	9	1	
VAH Madison, WI	12	1	
VAMC Manchester, NH	1	1	
VARO/OPC Manila, PI	21		
VAMC Marion, IL	15		√
VAMC Martinsburg, WV	5	1	
VA MARYLAND HEALTH CARE SYSTEM -VAMC Baltimore, MD Division -VAMC Fort Howard, MD Division -VAMC Perry Point, MD Division	5	1	
VAMC Memphis, TN	9	1	
VAMC Miami, Fl	8	1	
VAMC Milwaukee, WI	12	1	
VAMC Minneapolis, MN	23	1	
VA MONTANA HEALTH CARE SYSTEM -VA Eastern Montana Health Care System Division -VAM/ROC Ft. Harrison, MT Division	19	1	
VAMC Mountain Home, TN	9	1	
VAMC Muskogee, OK	16	1	
NEW MEXICO VA HEALTH CARE SYSTEM (Albuquerque)	18	1	

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VA NEBRASKA-WESTERN IOWA HEALTH CARE SYSTEM -VAMC Grand Island, NE Division -VAMC Lincoln, NE Division -VAMC Omaha, NE (Division)	23	3	
VAMC New Orleans, LA	16	1	
VA NEW JERSEY HEALTH CARE SYSTEM -VAMC Lyons, NJ Division -VAMC East Orange, NJ Division	3	1	
VA NEW YORK HARBOR HEALTH CARE SYSTEM -VAMC Brooklyn, NY Division -VAMC New York, NY Division (New York Harbor)	3	1	
VAMC North Chicago, IL	12	1	
VA NORTH FLORIDA/SOUTH GEORGIA VETERANS HEALTH SYSTEM -VAMC Gainesville, FL Division -VAMC Lake City, FL Division	8	1	
VA NORTH TEXAS HEALTH CARE SYSTEM -VAMC Bonham, TX Division -VAMC Dallas, TX Division	17	1	
VAMC Northampton, MA	1	1	
NORTHERN ARIZONA VA HEALTHCARE SYSTEM (Prescott)	18		√
VA NORTHERN CALIFORNIA HEALTH CARE SYSTEM	21	1	
VA NORTHERN INDIANA HEALTH CARE SYSTEM -VAMC Fort Wayne, IN Division -VAMC Marion, IN Division	11		√
VAMC Northport, NY	3	1	
VAMC Oklahoma City, OK	16	1	

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VA PALO ALTO HEALTH CARE SYSTEM -VAMC Palo Alto, CA Division -VAMC Menlo Park, CA Division -VAMC Livermore, CA Division	21		√
VAMC Philadelphia, PA	4	1	
VAMC Phoenix, AZ	18	1	
VA PITTSBURGH HEALTH CARE SYSTEM -VAMC Pittsburgh Highland Drive Division -VAMC Pittsburgh University Drive Division	4	1	
VAMC Poplar Bluff, MO	15		√
VAMC Portland, OR	20	1	
VAMC Providence, RI	1	1	
VA PUGET SOUND HEALTH CARE SYSTEM -VAMC American Lake, WA Division -VAMC Seattle, WA Division	20	1	
VAMC Richmond, VA	6		√
VA ROSEBURG HEALTHCARE SYSTEM	20	1	
VAMC Saginaw, MI	11	1	
VAMC Salem, VA	6	1	
VAMC Salisbury, NC	6		√
VAMC Salt Lake City, UT	19	1	
VAMC San Diego, CA	22	1	
VAMC San Francisco, CA	21	1	
VAMC San Juan, PR	8	1	
VAMC Sheridan, WY	19	1	
VAMC Shreveport, LA	16	1	
VA Sierra Nevada HCS, NV	21	1	
VAH&ROC Sioux Falls, SD	23	1	

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
VA SOUTH TEXAS VETERANS HEALTH CARE SYSTEM -VAMC Kerrville, TX Division -VAMC San Antonio, TX Division	17	1	
SOUTHERN ARIZONA VA HEALTH CARE SYSTEM (Tucson)	18	1	
VA SOUTHERN COLORADO HEALTH CARE SYSTEM (Pueblo)	19	1	
VA SOUTHERN NEVADA HEALTH CARE SYSTEM (Las Vegas)	22	1	
VAMC Spokane, WA	20	1	
VAMC St. Cloud, MN	23	1	
VAMC St. Louis, MO	15	1	
VAMC Syracuse, NY	2		√
VAMC Tampa, FL	8	1	
VA TENNESSEE VALLEY HEALTH CARE SYSTEM[36] -VAMC Murfreesboro, TN (Division) -VAMC Nashville, TN (Division)	9	1	√
VAM/ROC Togus, ME	1	1	
VAMC Tomah, WI	12	1	
VAMC Tuscaloosa, AL	7	1	
VAMC Walla Walla, WA	20	1	
VAMC Washington, DC	5		√
VA WESTERN NEW YORK HEALTH CARE SYSTEM -VAMC Batavia, NY Division -VAMC Buffalo, NY Division	2		√
VAMC West Palm Beach, FL	8	1	

[36] *Chief was designated to each Division within VA TENNESSEE VALLEY HEALTH CARE SYSTEM*

VAMC	VISN	NUMBER OF RESPONSES	DID NOT RESPOND
WEST TEXAS VA HEALTH CARE SYSTEM (Big Spring)	18	1	
VA DOM White City, OR,	20	1	
VAM/ROC White River Junction, VT	1	1	
VAMC Wichita, KS	15	1	
VAMC Wilkes-Barre, PA	4	1	
VAM/ROC Wilmington, DE	4	1	
TOTAL RESPONSE RATE = 82.1%			
TOTAL RESPONDENTS = 115			

Appendix F—
Facilities That Did Not Respond

Facilities That Did Not Respond

VAMC	VISN
VAMC Altoona, PA	4
VA ALASKA HEALTH CARE SYSTEM & REGIONAL OFFICE	20
VA Ann Arbor Health Care System	11
VAMC Bay Pines, FL	8
VA BLACK HILLS HEALTH CARE SYSTEM -VAMC Fort Meade, SD Division -VAMC Hot Springs, SD Division	23
VAMC Butler, PA	4
VA CENTRAL CALIFORNIA HEALTH CARE SYSTEM	21
VAH Columbia, MO	15
VA EASTERN KANSAS HEALTH CARE SYSTEM -VAMC Leavenworth, KS Division -VAMC Topeka, KS Division	15
VAMC Erie, PA	4
VA GREATER LOS ANGELES HEALTH CARE SYSTEM -VAMC Sepulveda, CA Division -VAMC West Los Angeles, CA Division	22
VAMC Kansas City, MO	15
VAMC Lebanon, PA	4
VA LONG BEACH HEALTH CARE SYSTEM	22
VAMC Marion, IL	15
VAMC Murfreesboro, TN (Division)	9
NORTHERN ARIZONA VA HEALTHCARE SYSTEM (Prescott)	18
VA NORTHERN INDIANA HEALTH CARE SYSTEM -VAMC Fort Wayne, IN Division -VAMC Marion, IN Division	11
VA PALO ALTO HEALTH CARE SYSTEM -VAMC Palo Alto, CA Division -VAMC Menlo Park, CA Division -VAMC Livermore, CA Division	21
VAMC Poplar Bluff, MO	15
VAMC Richmond, VA	6
VAMC Salisbury, NC	6
VAMC Syracuse, NY	2
VAMC Washington, DC	5
VA WESTERN NEW YORK HEALTH CARE SYSTEM -VAMC Batavia, NY Division -VAMC Buffalo, NY Division	2