

Applications of the
preventative health care
model to wound care: Primary
and tertiary prevention: *novel
programs for clinical care &
early intervention*

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Veterans Medical Programs Amendments of 1992 (PL102- 405)

- Emphasized importance of highest quality amputee care
- Identified veterans with amputation as a special disability group
- Chartered the Advisory Committee on Prosthetics and Special Disabilities Programs

1993 PACT Program Launched

- Developed to meet the changing needs of veterans
 - more neuropathy, PVD and diabetes
 - fewer traumatic amputations
 - **New issues in 2006 with returning OEF/OIF Vets**
- Established a model of care to prevent or delay amputations
- Proactive early identification of “at risk” populations
 - Especially veterans with diabetes
- Track from date of entry to discharge back to the community

Current Directive 2001-030

- **Purpose:**
 - Expand the scope of the care and treatment provided veteran patients at risk of limb loss or with amputations.
- **Background:**
 - Screen at patients
 - Assign a risk score
 - Timely and appropriate referral

What is VA Doing to Improve the PACT Program

- Currently rewriting the directive
 - High Risk Amputation Registry
 - Prepare for OEF/OIF Veterans
 - Redefine National, VISN and Local responsibilities
 - Require a local coordinator/champion

High Risk Amputation Registry

- **Unique in healthcare**
- Identifies “at risk” and “high risk” cohorts
- Helps identify system gaps for high risk patients
- Allows for proactive interventions

High Risk Amputation Registry

- Identifies patients with systemic conditions (ICD9 Codes)
 - Diabetes
 - End Stage Renal Disease
 - Peripheral Vascular disease
 - Neuropathy
- Identifies patients with foot conditions (ICD9 and CPT Codes)
 - Foot DeformityGangrene Smoking status
 - Hx. Ulcer Hx. Amputation.
 - Hx Osteomyelitis PVD Surg

High Risk Amputation Registry

- Combine those scores to arrive at a risk score of
 - 0-Normal risk
 - 1-Low Risk
 - 2- Moderate Risk
 - 3- High risk

High Risk Amputation Registry

- Identifies continuity of care: (Encounter codes)
 - Primary care visits within last year
 - Podiatry/foot care visit within last year
- Any patient with no visits to either primary care or podiatry/foot care are placed at the **top of the registry** for action.

High Risk Amputation Registry

- First release in November 2005
- Next release March 2006
- Interpretive guidance, methodology and examples are posted on the PACT Web Site
- Immediate consultative service available from the Multidisciplinary PACT Team.

Amputation Prevention (PACT)

PRESERVATION-AMPUTATION CARE AND TREATMENT (PACT) PROGRAM

VA's Preservation-Amputation Care and Treatment (PACT) program was established in 1993 to meet the changing needs of the veteran population, i.e., more neuropathic and vascular problems and fewer traumatic amputations. It represents a model of care developed to prevent or delay amputation through proactive early identification of patients who are at risk of limb loss.

Get the [VHA DIRECTIVE 2001-030 \(PACT\)](#)

Other Products	Monofilament Order Form
Field Manual for Foot Health	Reports
PACT CD ROM	Amputation Data Web Site
Patient Education Slides	Foot Screening Competencies for Providers
VA Diabetes Web Site	National PACT High Risk Foot Registry Documents
	Methodology Interpretive Guidance
	Here's how other facilities and VISN's are using the High Risk Foot Registry

PACT TOOLS, DOCUMENTS AND RESOURCES	PROGRAMATIC GUIDANCE
ALGORITHM 2001	ALGORITHM 2005
COMPONENTS OF A SERVICE AGREEMENT	CPRS FOOT SCREENING REMINDER
EXAMPLE 2 SERVICE AGREEMENT	EXAMPLE 1 SERVICE AGREEMENT
EXAMPLE LOCAL PACT POLICY	EXAMPLE ANNUAL VISN PACT REPORT

Here's how other stations are using the High Risk Foot Registry:

Central Alabama Health Care System is using the registry to:

- identify patients who have been lost to interval follow-up and were previously determined to be at risk
- track outcomes from advanced therapeutics by analyzing the limb loss rate from year-to-year
- justify the FTEE assigned to High Risk clinic by creating summary reports at the end of each FY
- justify the expansion of the High Risk clinic to remote treatment sites
- provide data to complement EPRP data pulls for compliance with the monofilament examination performance measure

Thanks to Ms. Verdelle Chambliss, Chief of Physical Therapy, Tuskegee Campus

North Chicago VAMC is planning on using the registry in the following manner:

- Podiatry Chief and Rehab Med. Co-chair the PACT Committee here and following review of the High Risk Foot Registry are calling a special meeting of the PACT Committee on February 22nd, 2006.
 - In addition to our usual members we are inviting the Clinical Guidelines Coordinator [who reports directly to the Chief of Staff] to this special meeting.
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Next Project: Ulcer Registry

- To further assist medical centers in preventing amputations.
- Will allow for tracking and interventions with this highest risk group
- Anticipated to completed by 1st Quarter 07
 - Draft registry has been developed and is being refined.

Prepare for returning OEF/OIF Veterans

- We are anticipating the unique needs of patients and adapting our system to ensure that they receive optimal medical and compassionate patient centered care.
- Each patient who has suffered an amputation should be offered a visit by their mental health consultation team, to assess coping and provide support as needed either in an individual or group format. (This approach avoids stigmatizing anyone as being singled out as having mental or emotional issues and also minimizes the potential for missing someone who is 'suffering in silence')

Unique Prosthetic Issues

- Heterotopic Ossification
- Recreational Activities
- Emerging technology

Require a local coordinator/champion

- A PACT coordinator to provide for (a) organizational support for the PACT team, (b) communication conduit between administration and PACT/Amputee clinic team providers, (c) a smooth transition of the DOD patient into the VA system

Predictors of Self Footcare Behaviors in Veterans at Risk for Amputation The VA Diabetes Footcare Survey

Mark Johnston, Mangala Rajan, Allison
Mitchinson, Sarah Krein, Kristin Bonacker,
Gayle Reiber, Len Pogach

VA New Jersey Healthcare System, VA Puget
Sound Healthcare, VA Ann Arbor Medical Center
Presented 63rd ADA Scientific Sessions Abstract
#274, June 2003

In other words; How well are we preparing our patients to prevent foot problems that can lead to amputation?

They get the education but do they actually perform self care?

Demographic Characteristics of Sample

Demographic Descriptors	Mean, % (standard deviation)
Mean age (std. dev.)	67.0(10.3)
Mean years with diabetes (std. dev.)	15.9(12.5)
Male gender	98.8%
Current smoker?	24.2%

Illness Burden and Foot Risk

Characteristics of Sample

Illness Burden and Foot Risk Indicators	Mean, % (standard deviation)
Nerve damage in your feet or legs	47.3%
Problems with circulation in legs	74.2%
Ulcers in last 12 months	18.3%
Sores (<i>ulcers</i>) that did not heal in one month	21.8%

Illness Burden and Foot Risk

Characteristics of Sample

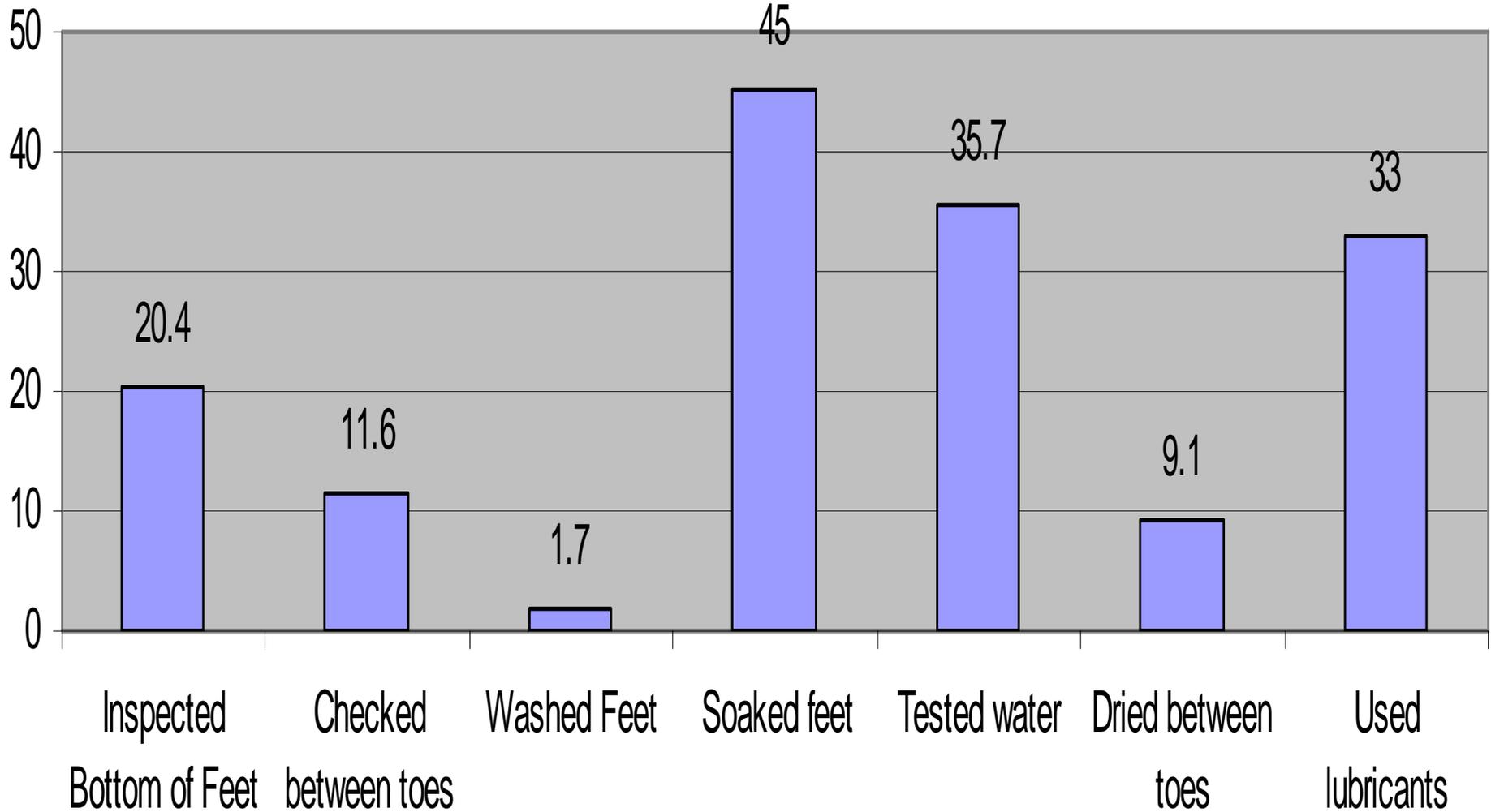
Illness Burden and Foot Risk Indicators	Mean, % (standard deviation)
Lower extremity amputation (non-traumatic (minor or major))	13.1%
Heart attack	3.3%
Congestive heart failure	33.8%
Peripheral bypass surgery	24.5%

Illness Burden and Foot Risk

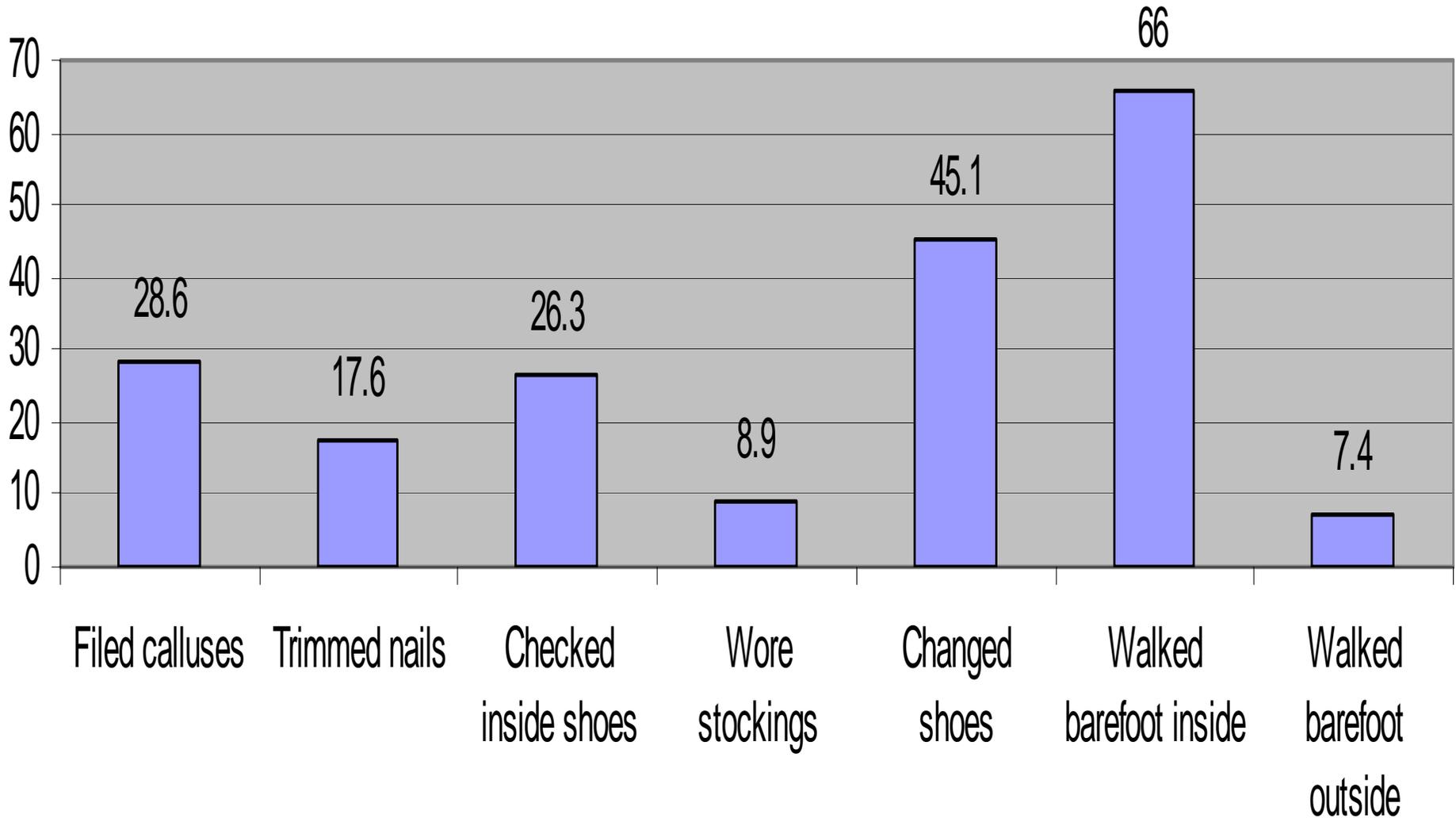
Characteristics of Sample

Illness Burden and Foot Risk Indicators	Mean, % (standard deviation)
Problems with depression	12.3%
Mean BMI (std. deviation)	30.35 (6.43)
General health (single item mean & std. dev) (<i>Fair or Poor</i>)	64%
Health compared to last year (single item) (about the same, somewhat or much worse)	77%

Unhealthy Behaviors



Unhealthy Behaviors



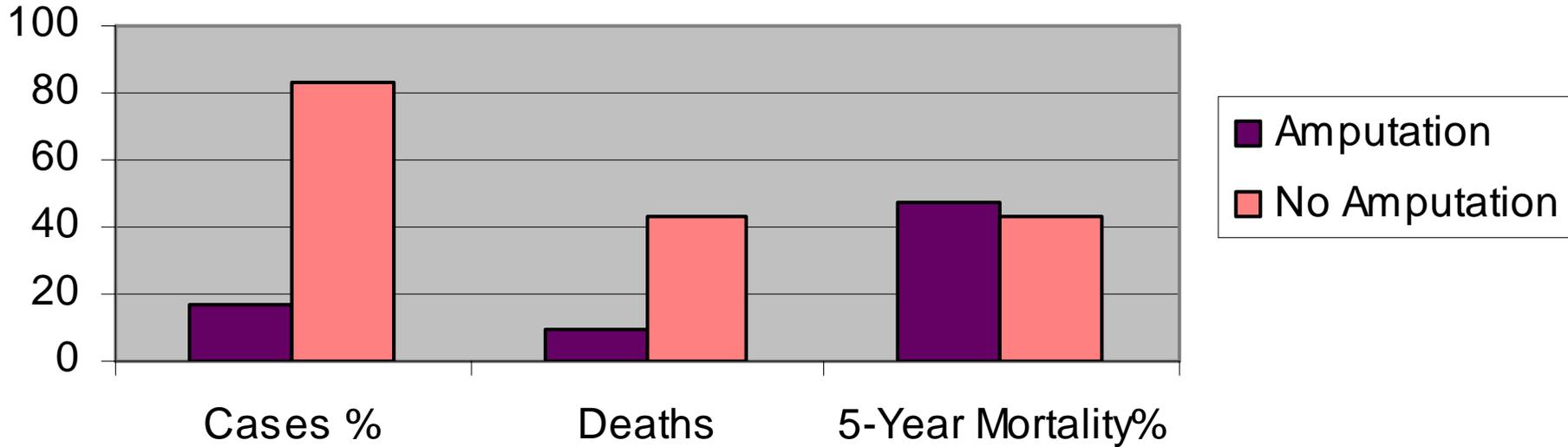
Conclusions

- Self foot care practices by veterans with high risk feet are not optimal.
- Actionable factors -- provision of greater basic and extended foot care and education -- are clearly associated with increased adherence to basic self-foot care practices.

Amputation and Mortality in New-onset Diabetic Foot Ulcers Stratified by Etiology

- “All types of foot ulcers are associated with high morbidity and mortality.”
- Probal, MK, Mtonga, R, gill, GV, Diabetes Care, Volume 26, Number 2, February 2003

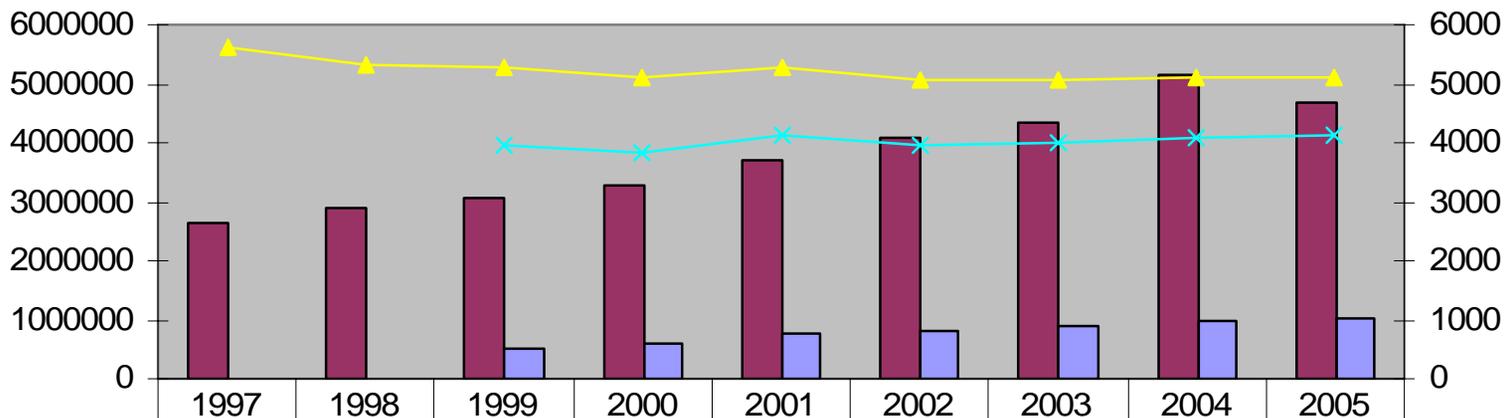
Amputation/No Amputation and Mortality



	Cases # (%)	Deaths	5 Year Mortality
Amputation	30 (17)	9	47
No Amputation	153 (83)	43	43

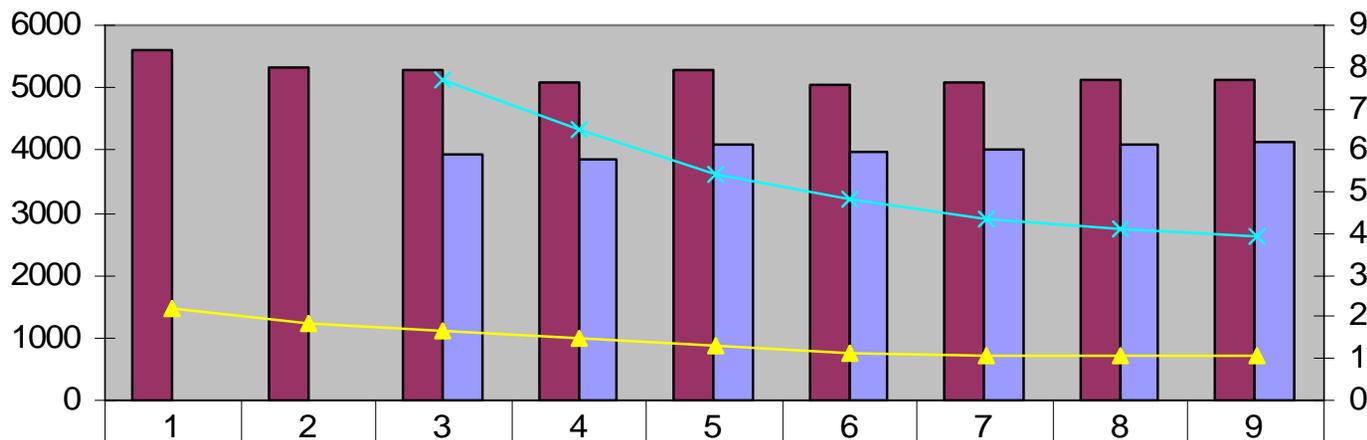
How is VHA Doing?

Total Overall and Diabetes Unique VHA User Population and Total Maximum Amputations per Discharge Performed- FY 1997 - 2005 (Based on Maximum Amputation per Discharge)



Total Uniques	2641063	2882972	3053432	3296840	3711467	4100219	4346908	5145991	4,672,71
Total Diabetes Uniques			514006	590058	753720	817543	901494	971506	1,035,69
Total Amputations	5618	5320	5282	5089	5270	5047	5081	5107	5123
Total Diabetes Amputations			3950	3836	4112	3957	4005	4095	4124

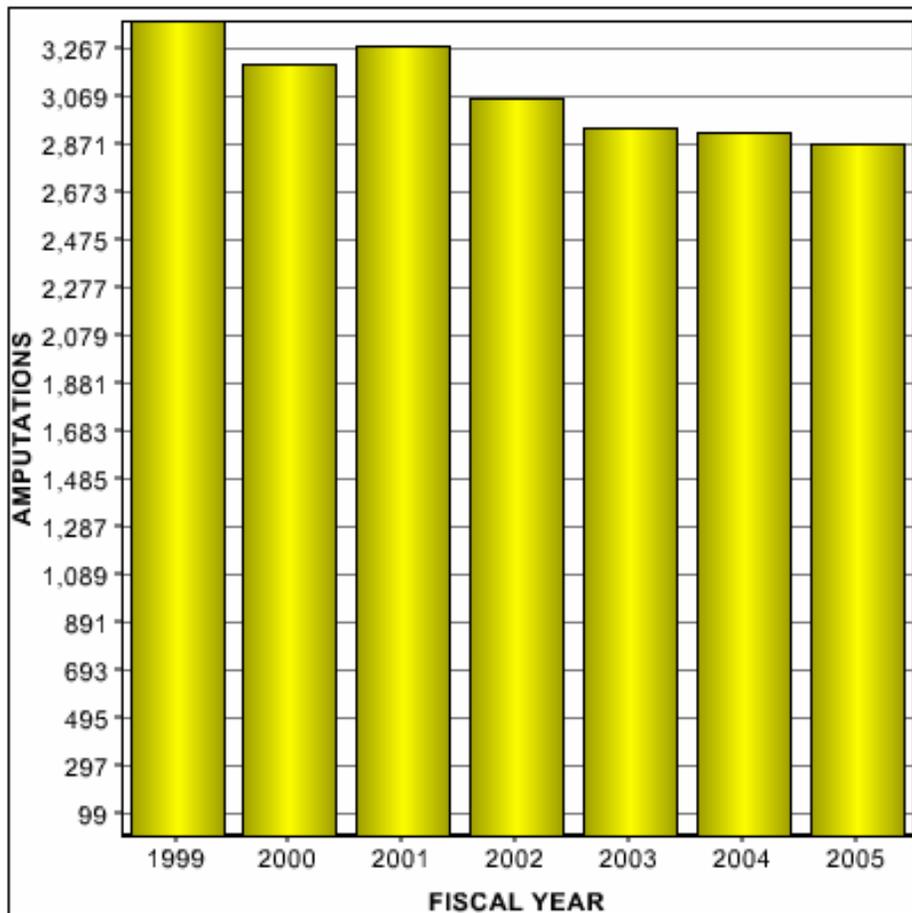
Overall (FY 1997-2004) And Diabetes (FY 1999-2005) Total Maximum Amputations with Age-Standardized Rates (Based on Maximum AMputation per Discharge)



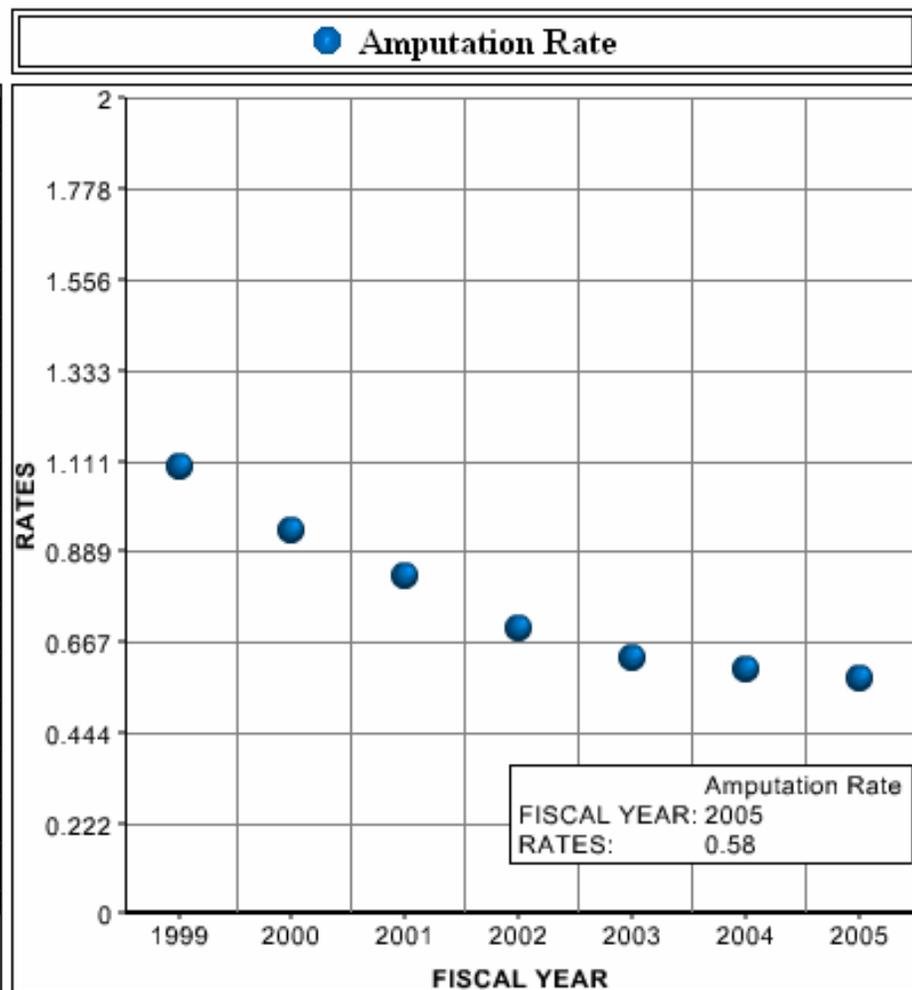
 Total Amputations	5618	5320	5282	5089	5270	5047	5081	5107	5123
 Total Diabetes Amputations			3950	3836	4112	3957	4005	4095	4124
 Age-Standardized Rate Overall	2.18	1.85	1.69	1.47	1.33	1.15	1.1	1.07	1.05
 Age-Standardized Rate Diabetes			7.68	6.49	5.41	4.84	4.38	4.14	3.94

Fiscal Year = 99,00,01,02,03,04,05, VISN = ALL, Age Group = ALL, Rate = Standardized, Surgical Procedure= Major Amputation , Cohort = All Patients - All Amputations

Number of Amputations



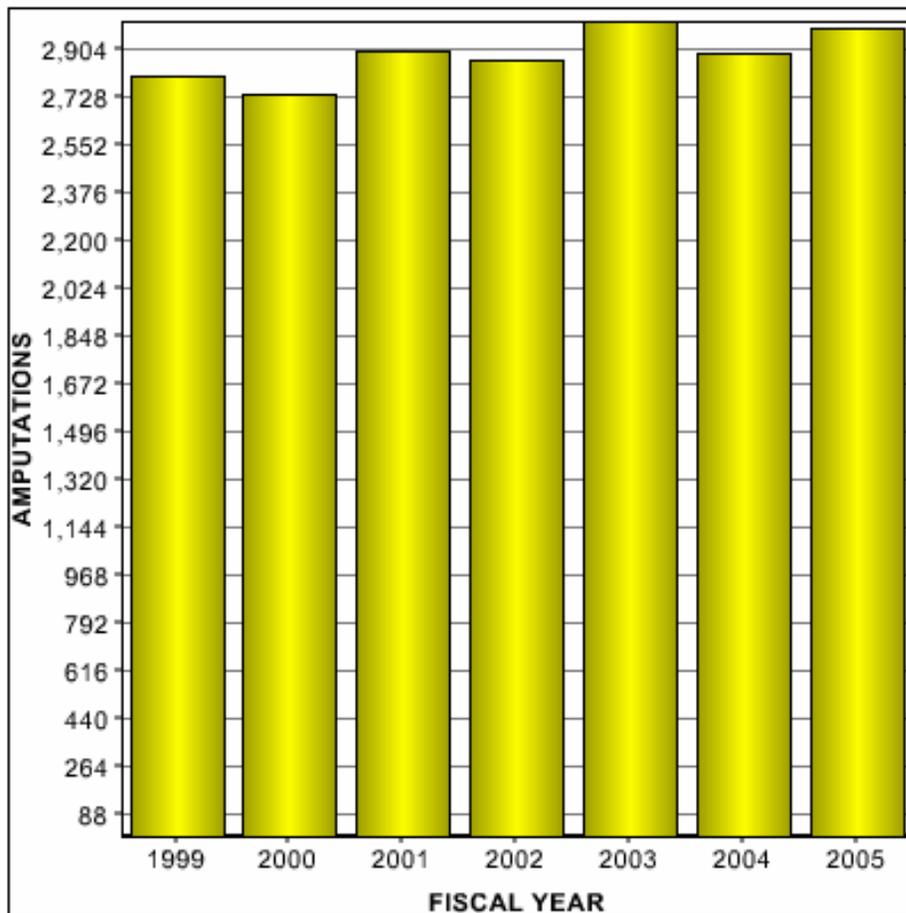
Amputation Rate



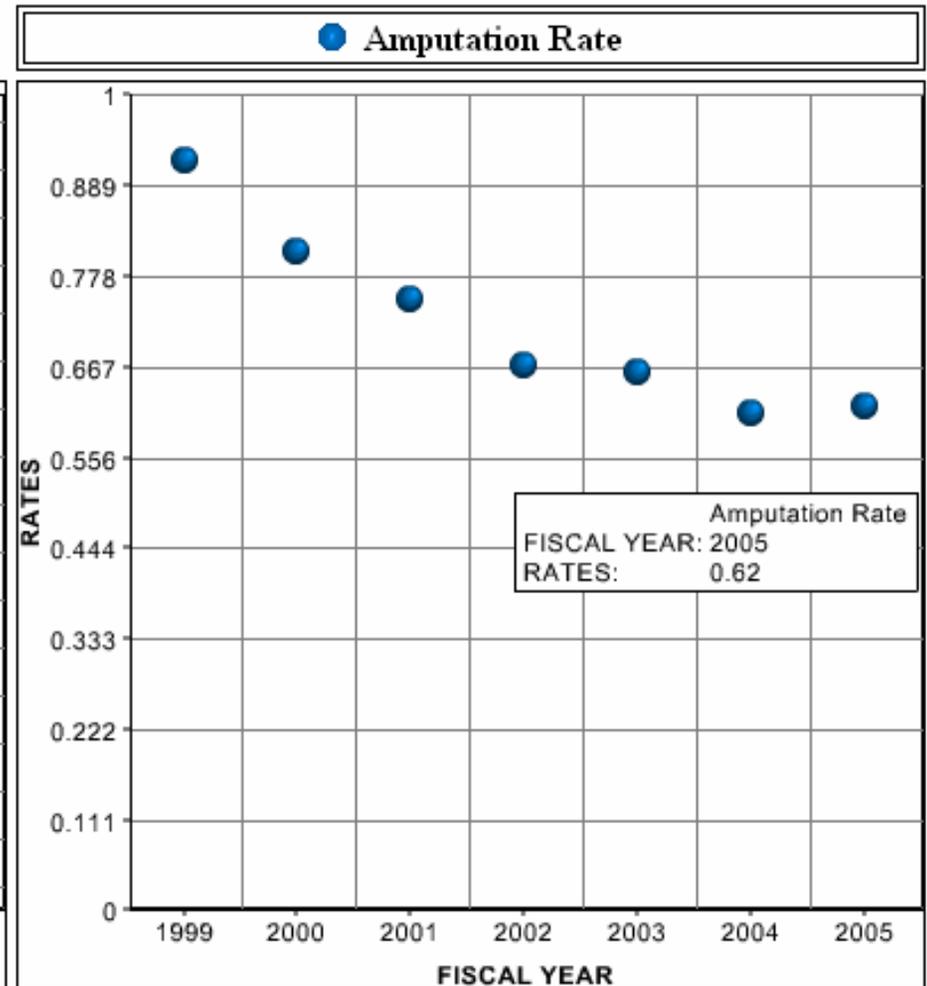
Number of Amputations and Age - Standardized Rates per 1,000 Unique Users, by YEAR

Fiscal Year = 99,00,01,02,03,04,05, VISN = ALL, Age Group = ALL, Rate = Standardized, Surgical Procedure= Minor Amputation, Cohort = All Patients - All Amputations

Number of Amputations

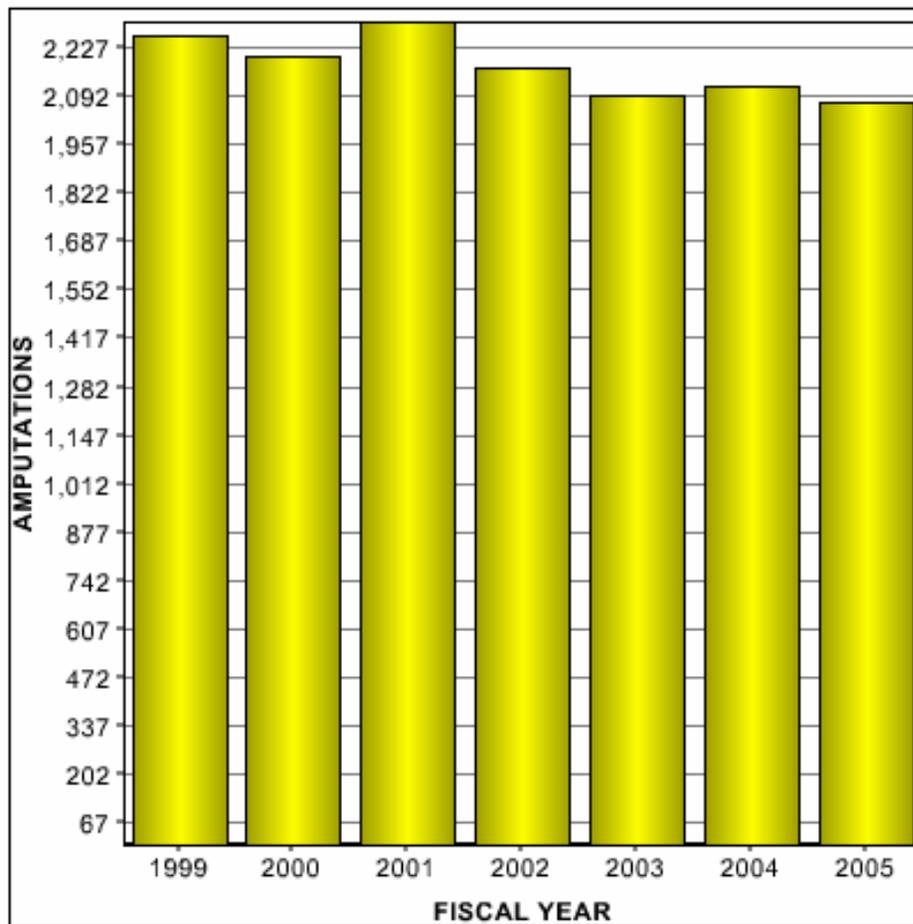


Amputation Rate

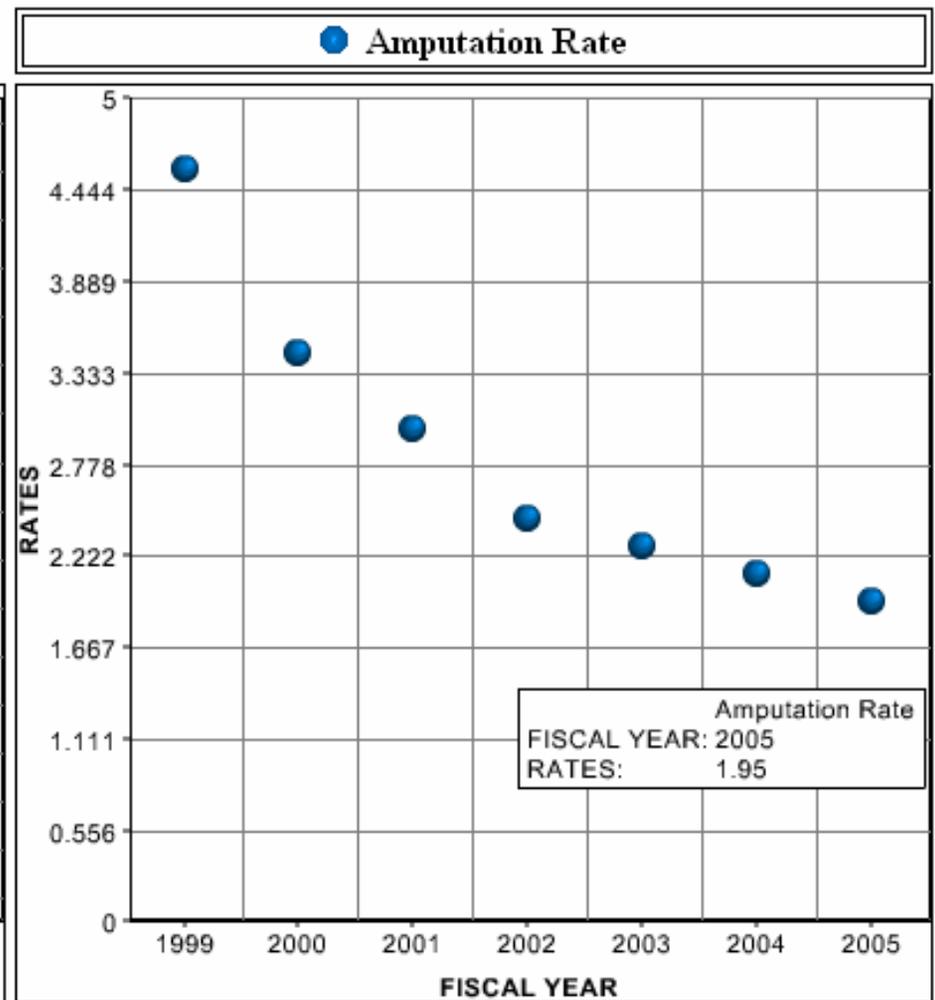


Fiscal Year = 99,00,01,02,03,04,05, VISN = ALL, Age Group = ALL, Rate = Standardized, Surgical Procedure= Major Amputation , Cohort = Has Diabetes - All Amputations

Number of Amputations

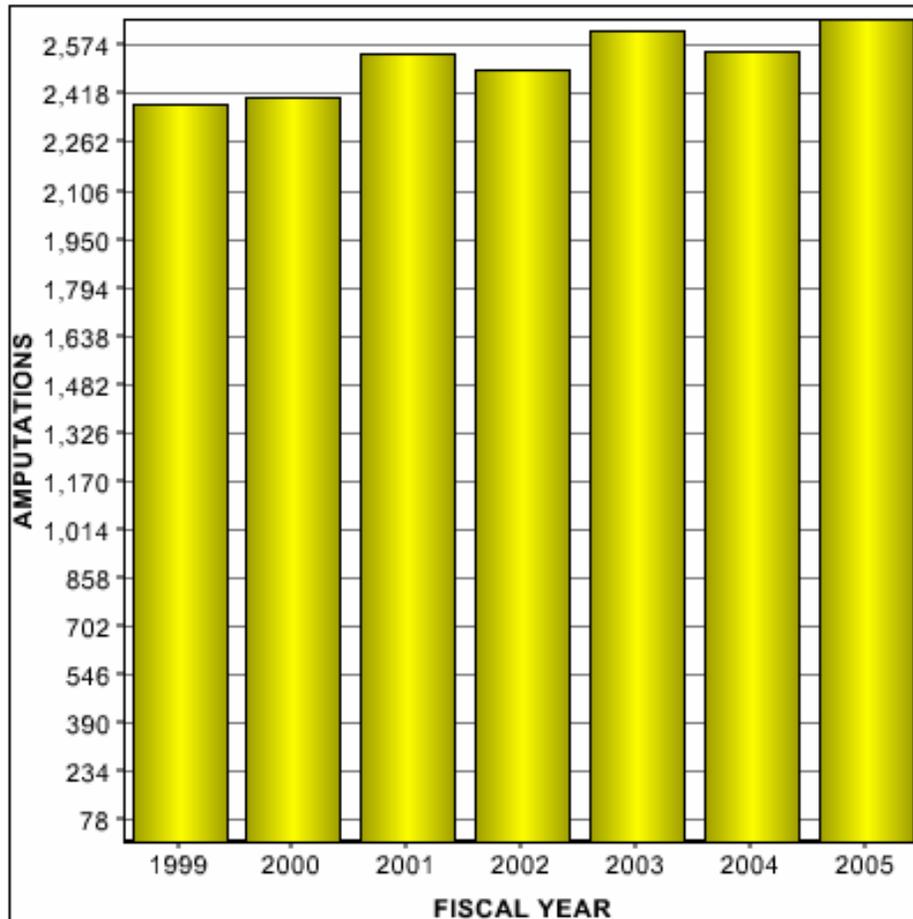


Amputation Rate

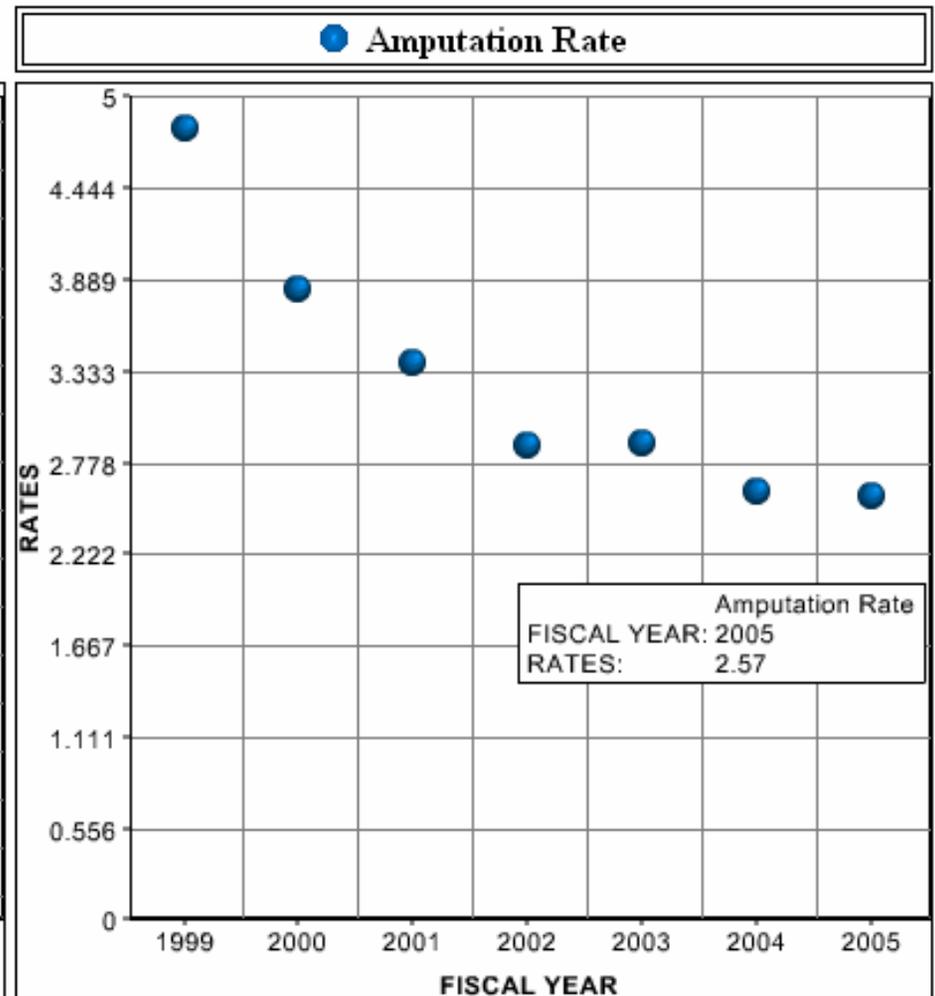


Fiscal Year = 99,00,01,02,03,04,05, VISN = ALL, Age Group = ALL, Rate = Standardized, Surgical Procedure= Minor Amputation , Cohort = Has Diabetes - All Amputations

Number of Amputations



Amputation Rate



Conclusion

- VA is the benchmark in amputation prevention programs
- Need to do an even better job doing “right things right the first time”.
- “At risk” population is increasing
- Will continue to focus on better methods of prevention, treatment and rehabilitation to provide the highest functional capacity for veterans.