

# Continuous Process Improvements:

Navy Medical Evaluation Board

Navy Physical Evaluation Board

and

Comprehensive Combat and Complex Casualty Care

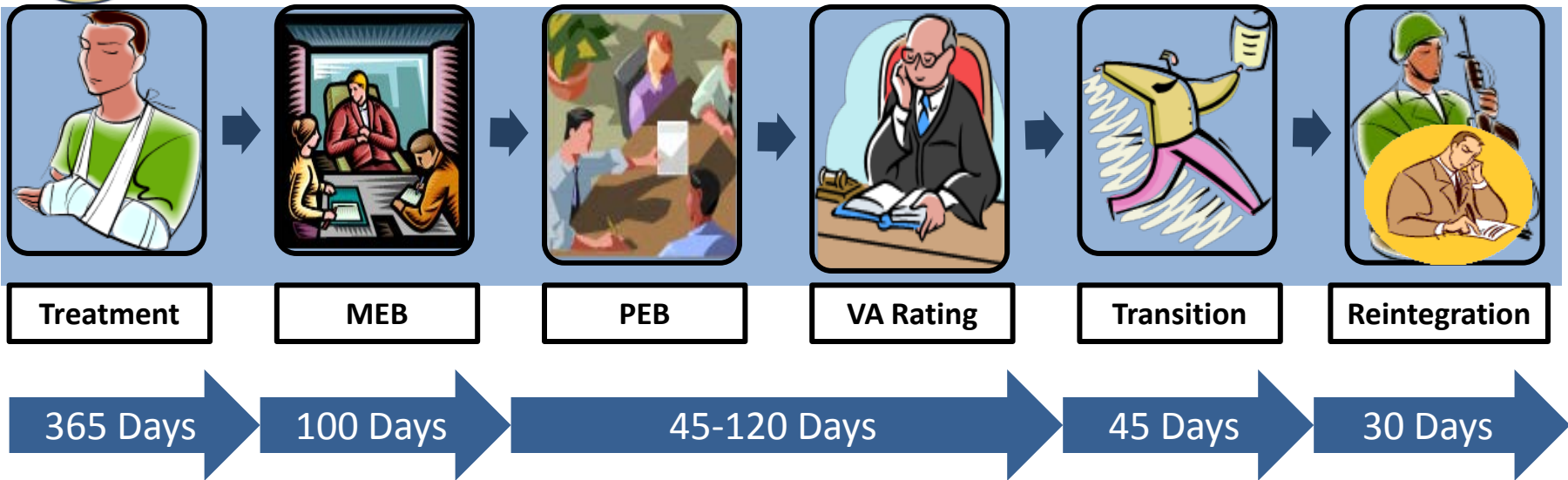
(C5)

Bureau of Medicine and Surgery

Program Analysis & Evaluation (M81)



# Integrated Disability Evaluation Process



Stage of IDES	Description
Treatment	Injury, Physician assessment & treatment, Refer to IDES
MEB	Counsel, VA exams, Narrative summary, Submit package to PEB
PEB	Determine fit or unfit, Informal, Formal and Appeal boards
VA Rating	VA rating and reconsideration
Transition	Finalize disposition decision, Return to duty or Separate
Reintegration	VA benefit letter within one month



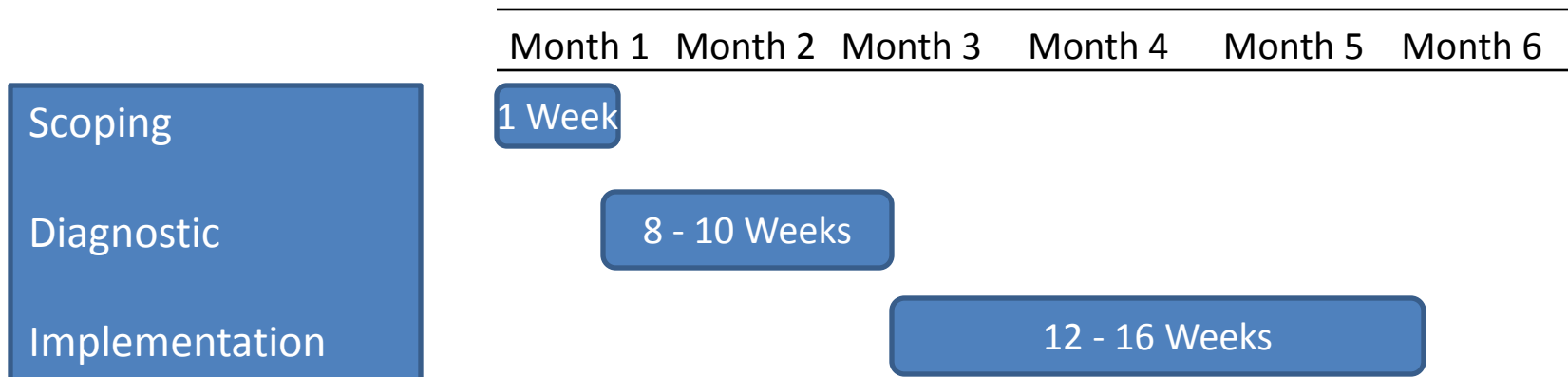
# Process Improvement Approach

- Collaborative “Workstream” approach:
  - Industrial Engineers
  - Work hand-in-hand with hospital staff
- Data driven by/from:
  - Electronic health records
  - Observational data collection
- Implementation Focused:
  - Near term (days/weeks)
  - Solutions developed locally w/ system wide considerations

**Work is owned and championed Locally**



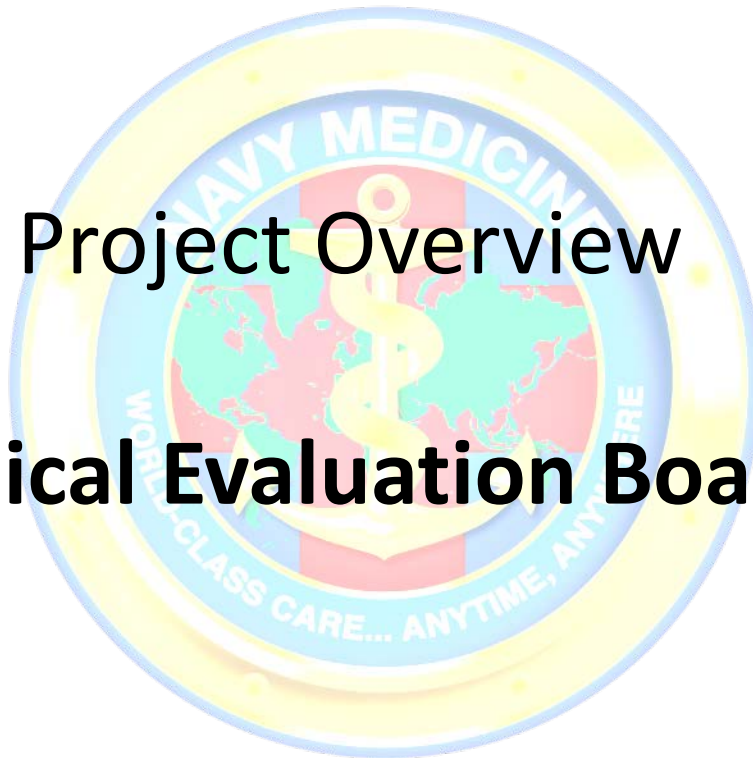
# Process Improvement Phases



**Scoping**: Identify opportunities and define potential workstreams

**Diagnostic**: Current state, future state, and implementation plan

**Implementation**: Execute implementation plan



## Project Overview

# **Navy Medical Evaluation Board (MEB)**

RWTF Presentation

2 April 2013

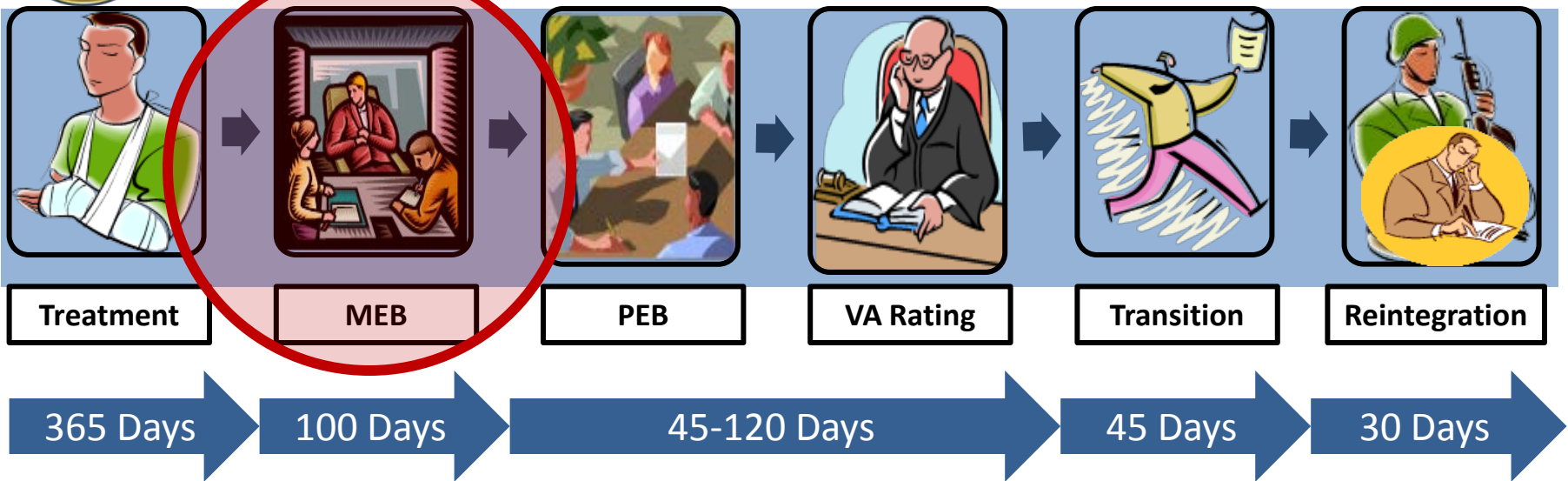


# Task Force Questions

1. General overview of the evaluation:
  - A. How many sites visited
  - B. What was learned across sites
2. Description of process evaluation at IDES sites
3. What best practices were identified?
4. What weaknesses were identified in the process?
5. What recommendations did the team make, and have they been implemented?



# Integrated Disability Evaluation Process



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# Medical Evaluation Board Process



IDES Referral

365 Days



PEBLO Counsel

10 Days



VA Appt

10 Days



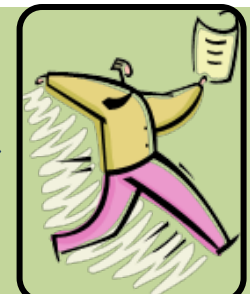
VA Med Eval

45 Days



NARSUM

35 Days



Package to PEB

100 Days Total

Stage of MEB	Description
DES Referral	Service member injured, medical assessment, treatment and referral to IDES
PEBLO Counseling	IDES explanation to service member, claims process, prepare medical record
VA Appt Coordination	Validates referring conditions and schedules VA appointments
VA Medical Evaluation	Service member receives examination of referred and claimed conditions
Narrative Summary	Exam results received, Referring physician prepared NARSUM
Package to PEB	MEB package finalized and sent to PEB for adjudication and ratings



# Medical Evaluation Board Findings

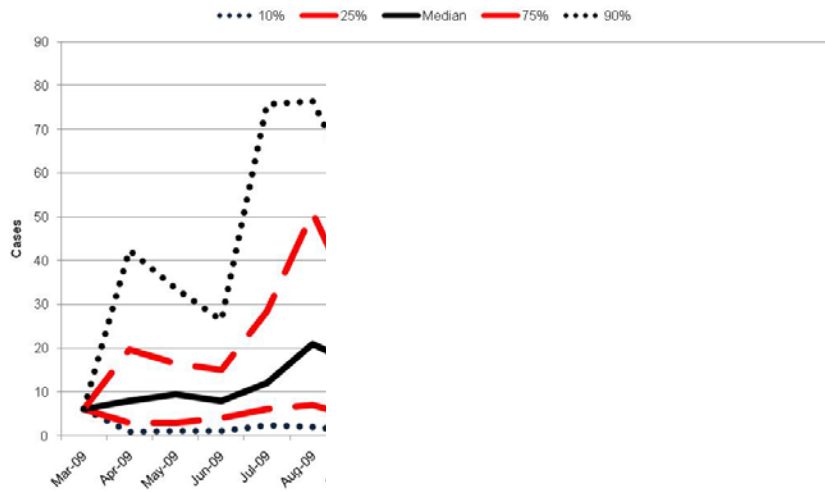


Got Paper?

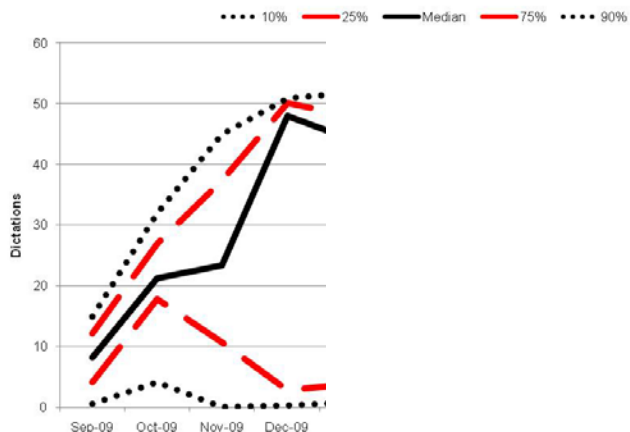


# Medical Evaluation Board Findings

Initial Counseling Turnaround Time Variation



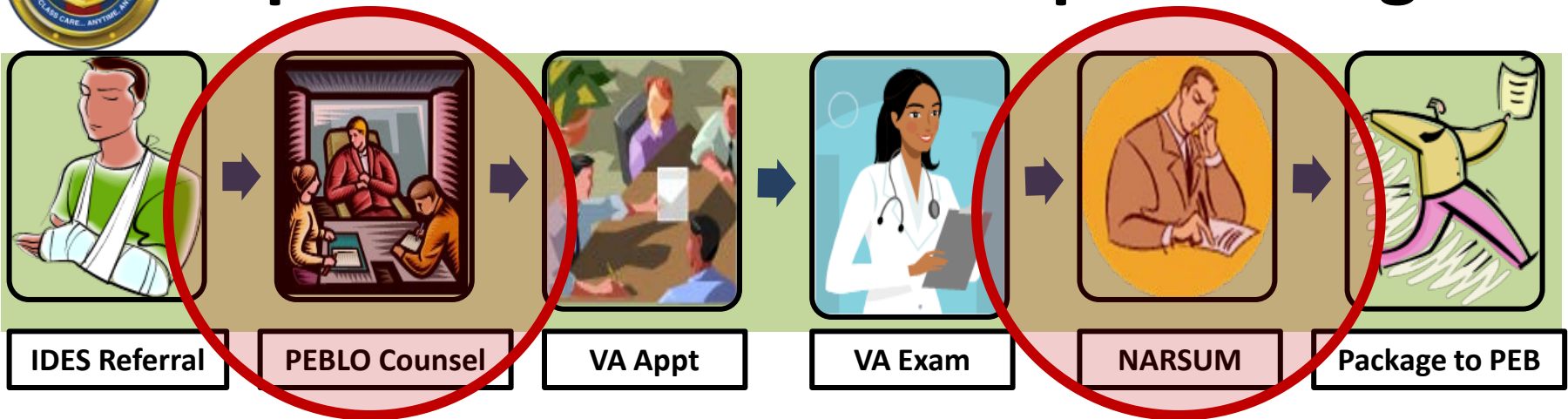
Medical Boards NARSUM: Time from Dictated to Transcribed



- PEBLO initial counseling highly variable, 20-70 days
- NARSUM processing highly variable, 30-50 days
- MEB processing team
  - Job-shop orientation
  - Not following FIFO
  - No separation of tasks
  - Unclear time expectations
  - No back-up
  - Limited management visibility



# Implementation: Reduce processing time

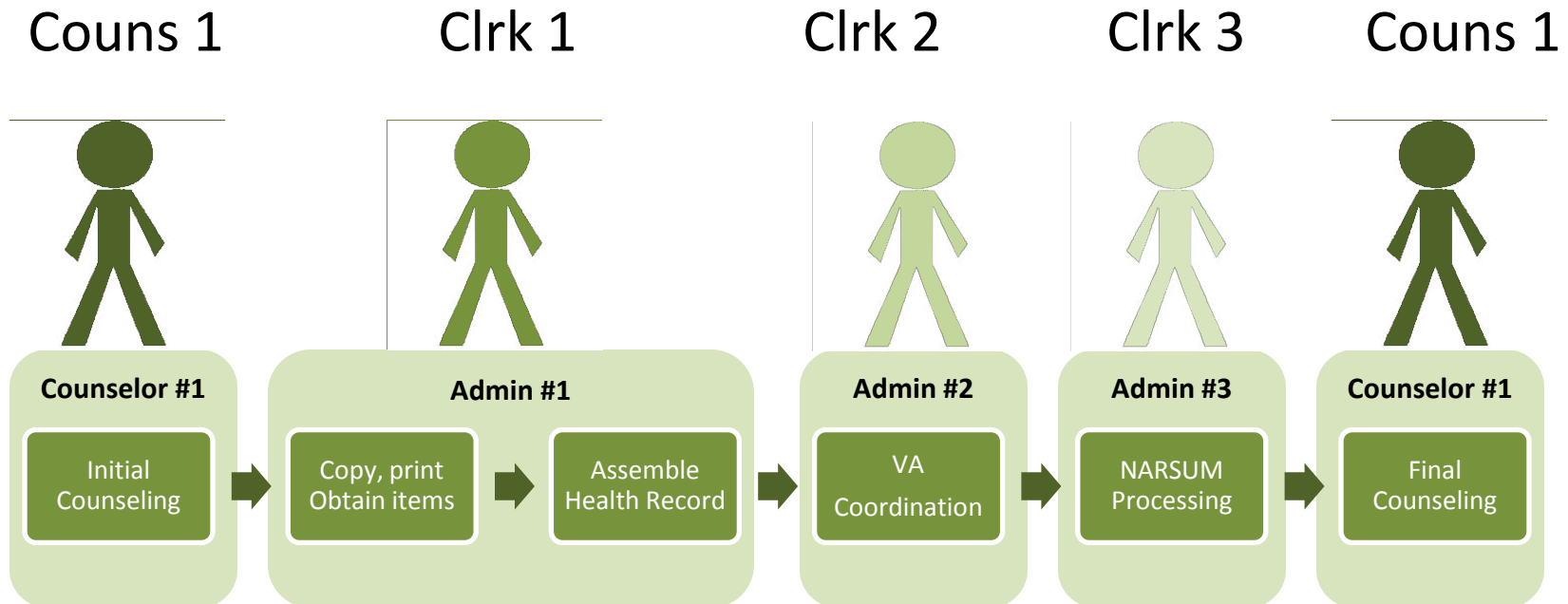


- Divide tasks into counseling and administrative functions
- Layout space and sequence to facilitate
  - First-in-first-out processing
  - Minimal set-up, no rework
  - Visibility of case load and processing delays
- Clear time expectations
- Measure and monitor results



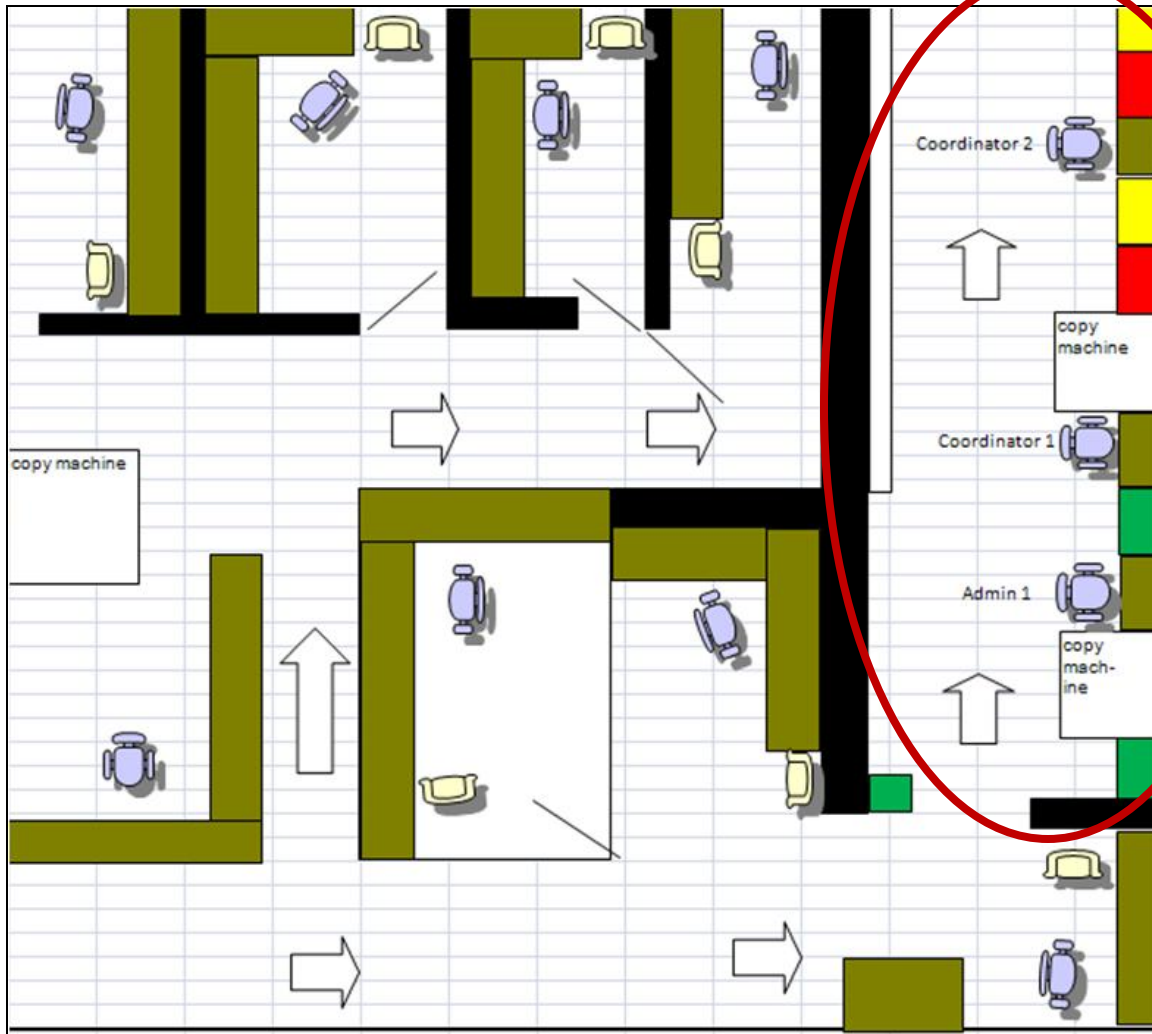
# MEB Implementation: PEBLO Counseling

## Assembly line processing





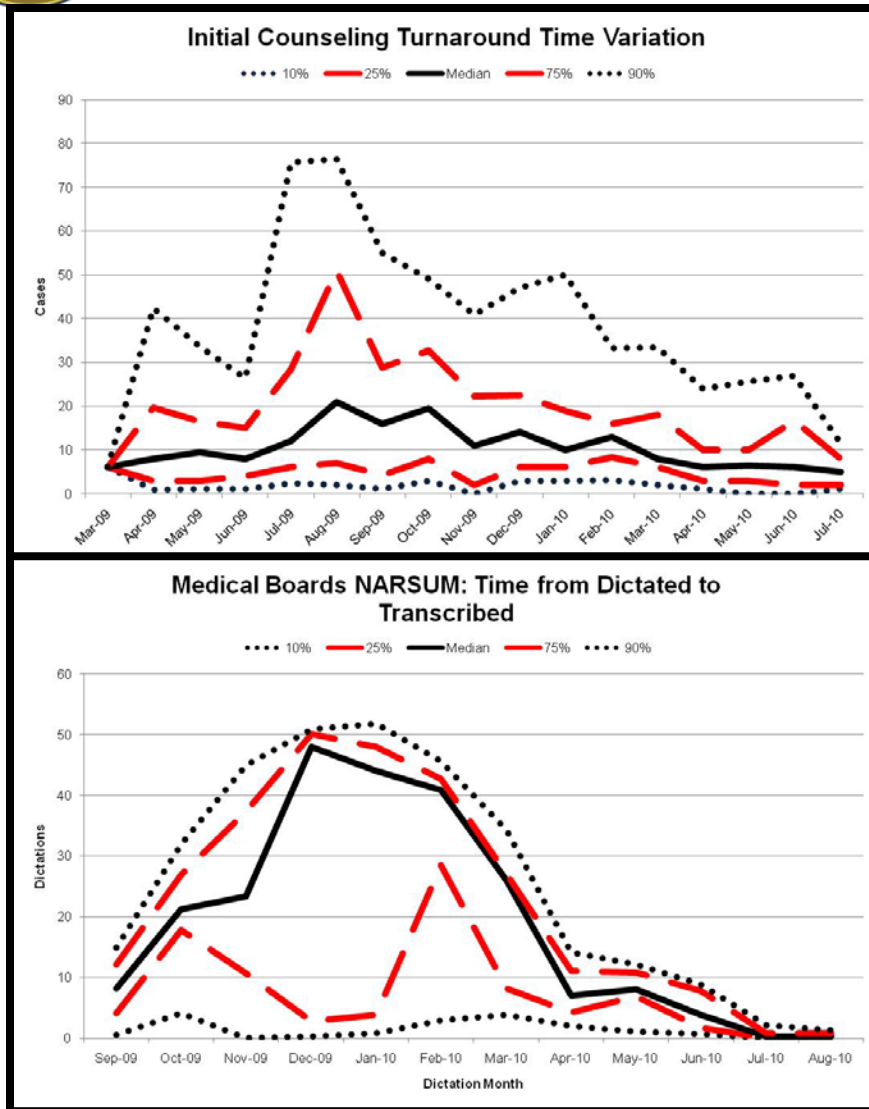
# MEB Implementation: PEBLO Counseling



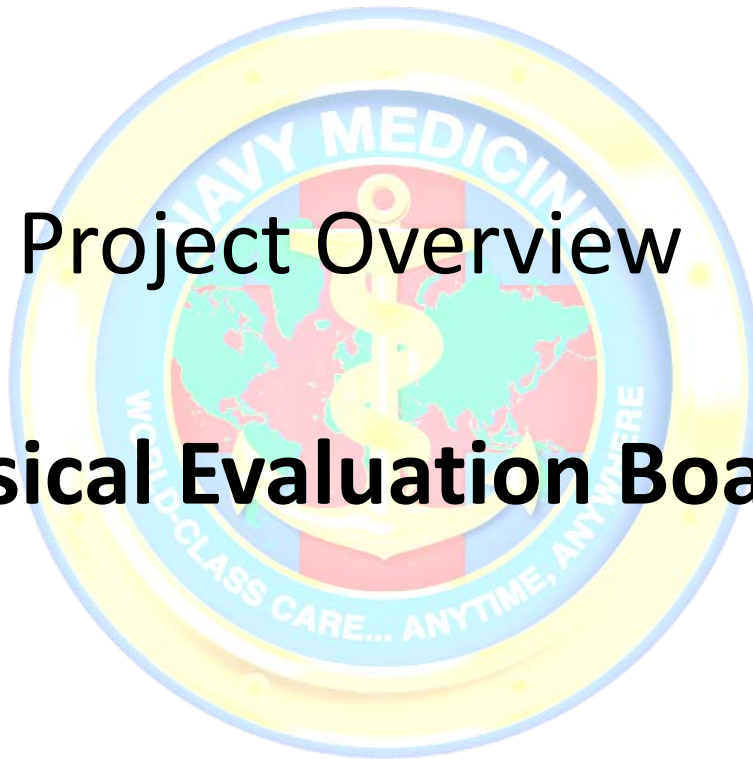
- 2 x Copiers
- 3 x Small Desks
- 2 x Shelf Systems
- 4 x Bookcases
- 3 x CPU's
- 3 x Chairs
- 1 x Printer (Fast)
- 1 x Inbox
- 1 x Outbox



# Project Results



- PEBLO initial counseling reduced to 5 days
- NARSUM reduced to 2 days
- MEB processing team
  - Separation of tasks
  - FIFO sequenced
  - Clear time expectations
  - Visible case load
  - Back-up when needed
  - Management dashboards



## Project Overview

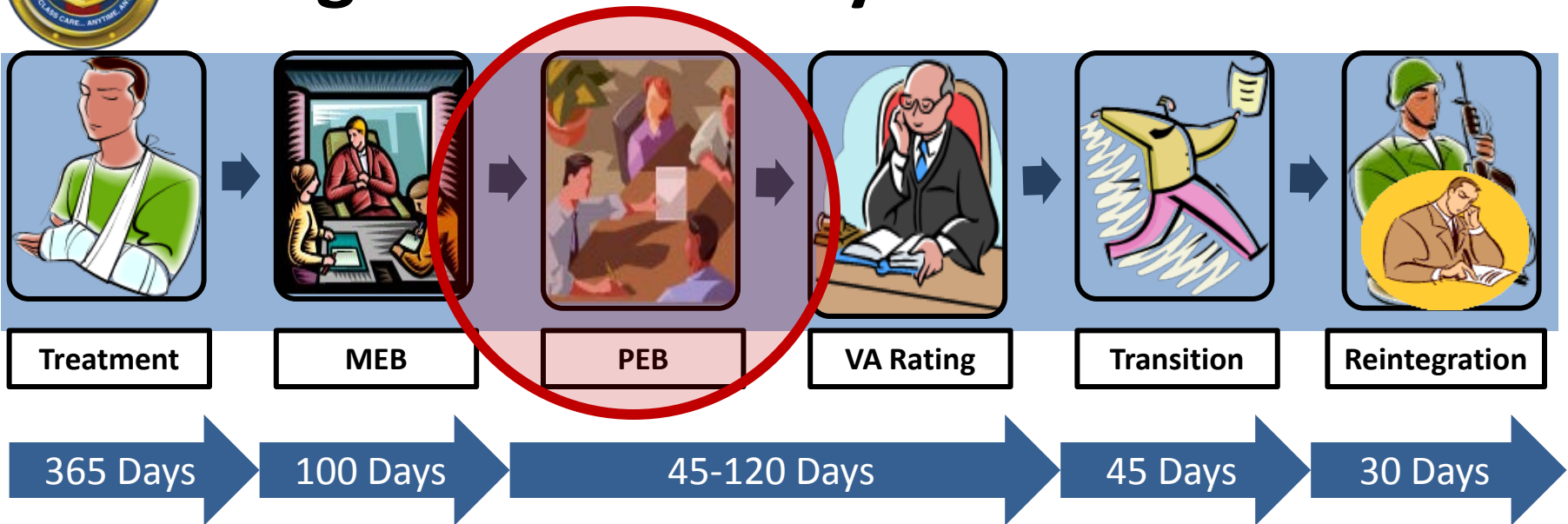
# **Navy Physical Evaluation Board (PEB)**

RWTF Presentation

2 April 2013



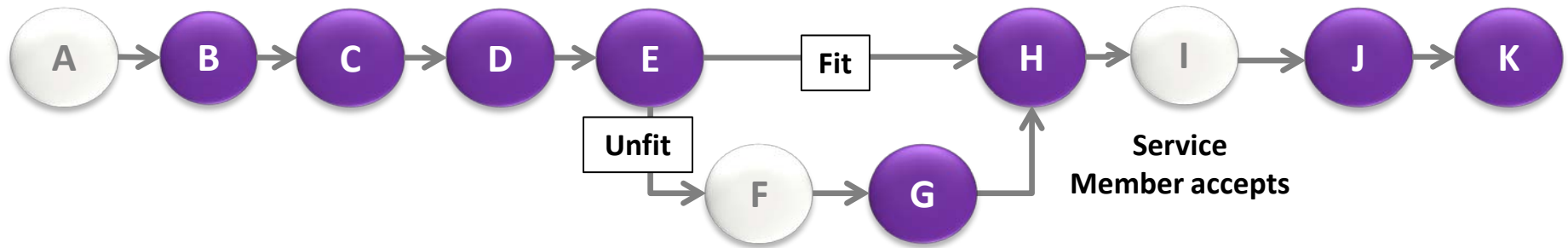
# Integrated Disability Evaluation Process



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# Physical Evaluation Board Process



Stage of PEB Process	Description
A. MEB package arrives	The MEB patient package from an MTF arrives at the PEB
B. Intake Section	Case is stamped received and placed into a folder
C. Recorder Section	Case is reviewed for content and entered into JDETS
D. Adjudication Section	Case is reviewed and “Fit” or “Unfit” decision reached
E. Pre-VA Quality Assurance	PEB findings are checked before sending to VA
F. VA	Case is rated by the VA
G. Post-VA Quality Assurance	VA ratings are matched with PEB findings
H. En Bloc (Pre Service Member)	PEB findings and VA ratings are sent to service member
I. PEBLO / Service Member	Service member reviews their PEB finding and VA Rating
J. En Bloc (Post Service Member)	Service member decision is sent to service headquarters
K. Case Storage	Case file is stored long term



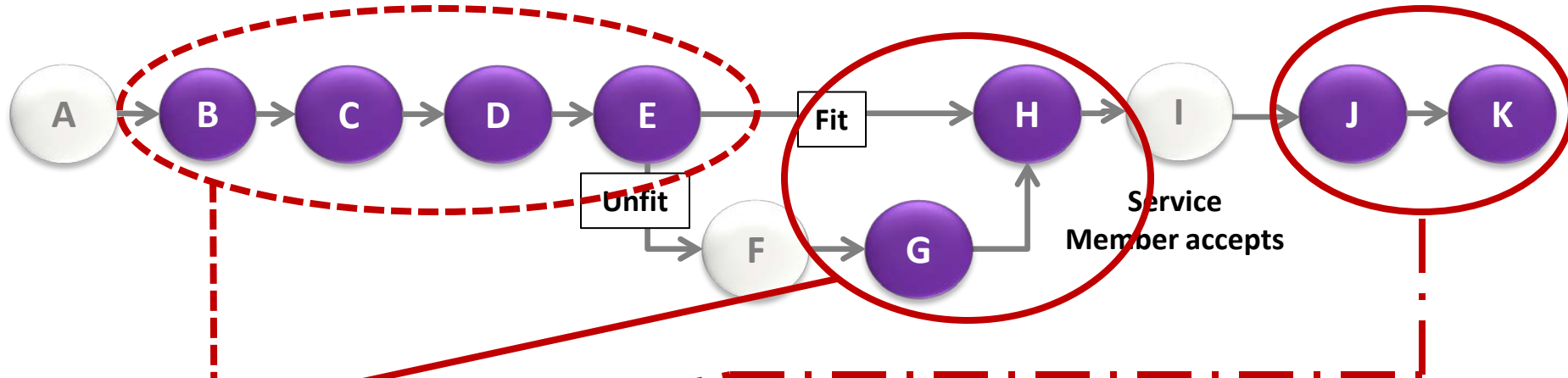
# Physical Evaluation Board Findings



Got Paper?



# Physical Evaluation Board Findings

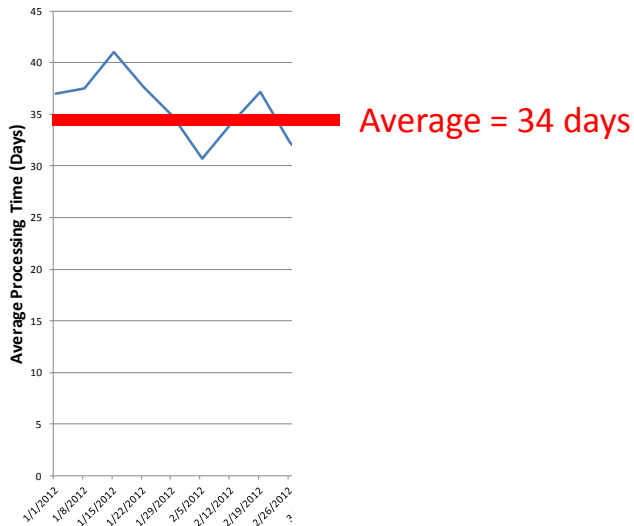


1. Intake thru adjudication decisions and QA check  
**34 days**
2. Receipt of VA rating and notification sent to PEBLO  
**21 days**
3. Receipt of service member response, notification sent to Service HQ, case file sent to long-term storage  
**6 days**

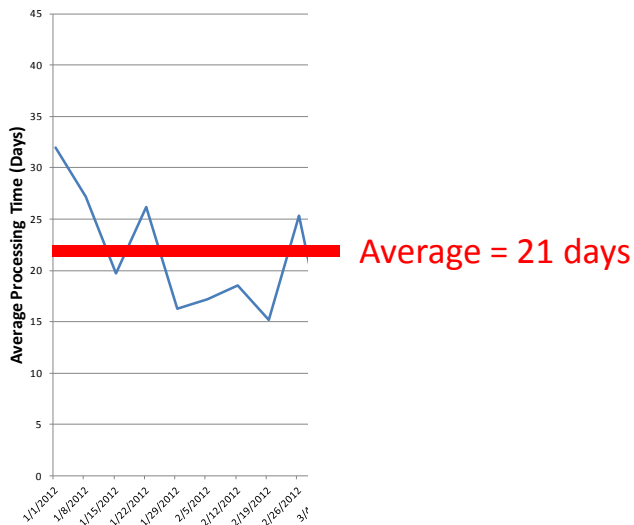


# Physical Evaluation Board Findings

Input to VA Notification



VA to PEBLO Notify



- Intake process variable
- Informal rework process with PEBLOs at MTFs
- Incomplete/missing item packages untracked, invisible
- Not always following FIFO
- High non-value/value added time in adjudication
- High number of interruptions of staff during work hours
- Unclear task expectations
- Limited management visibility



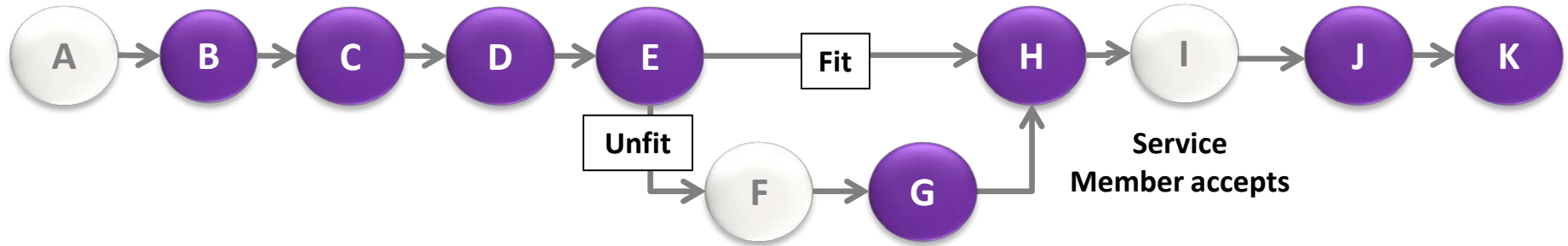
# Physical Evaluation Board Implementation

## Implementation items

- Standard MEB package content checklist
- Developed case issue tracker
- Hotline for communication with PEBLOs
- Implemented electronic file transfer system with VA
- Defined management dashboard metrics
- Developed dashboard tool with Pentagon MID
- Established processing time expectation
- Defined staff roles and responsibilities
- Established bi-weekly case shipment requirements to long-term storage site



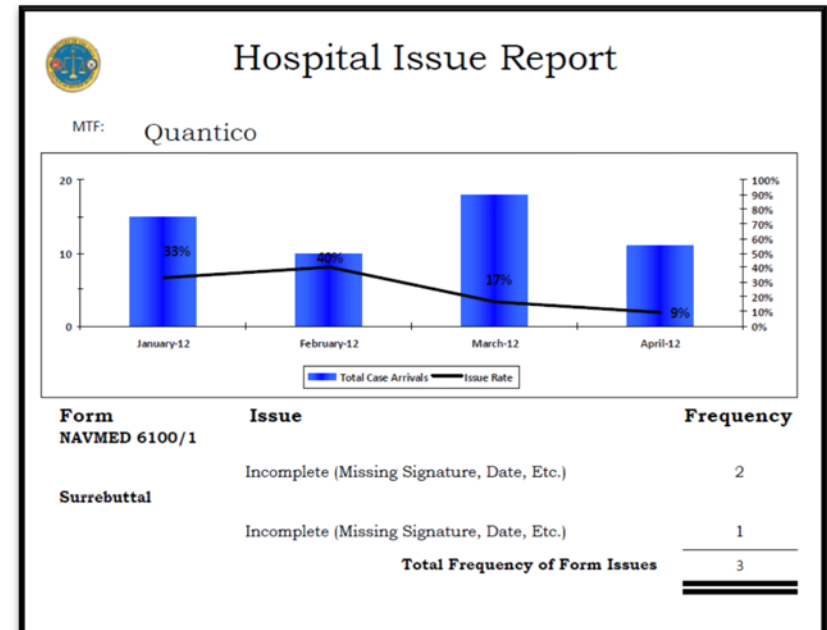
# Physical Evaluation Board Implementation



## Implement Standard Checklist

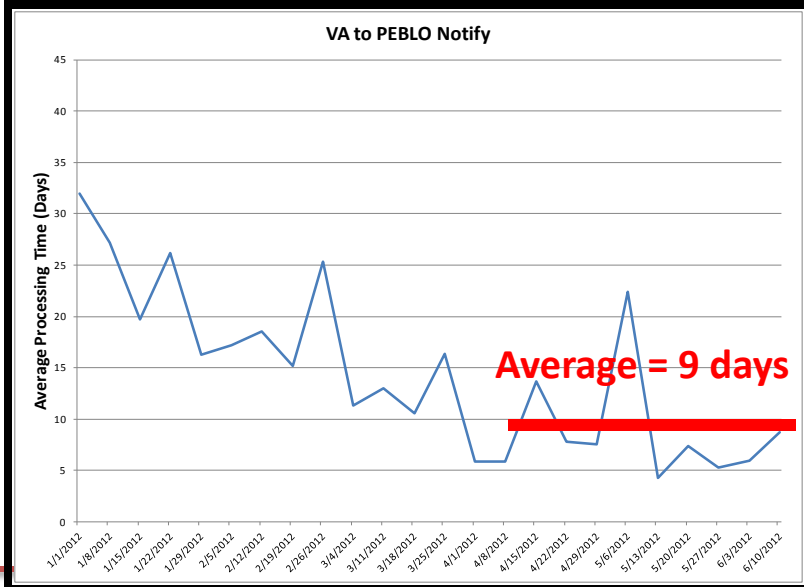
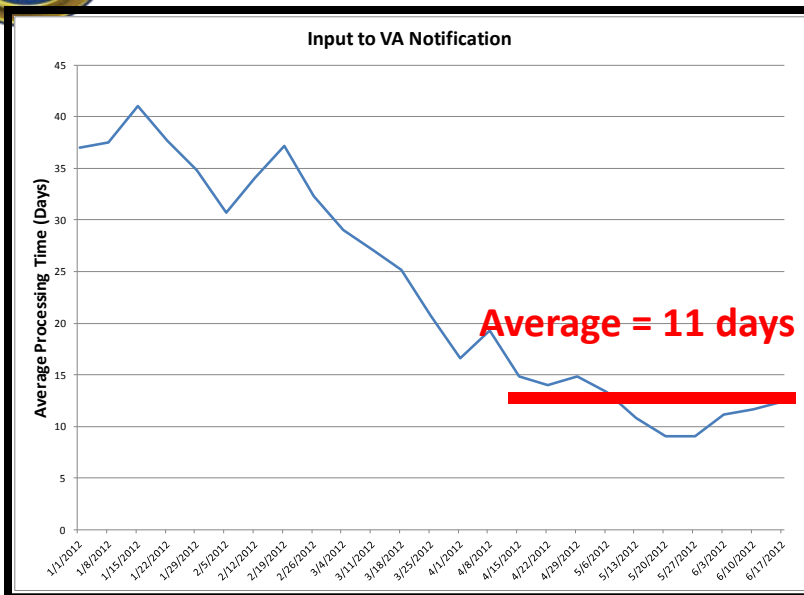
Integrated Disability Evaluation System Package Checklist			
<b>Instructions:</b> Please use this form to confirm all necessary contents are submitted with the case to the physical evaluation board. Please fill out and attach this form to the submitted case file.			
SERVICE MEMBER NAME	RANK/BRANCH	LAST 4SSN	DOB
MTF	RESERVE YES / NO	IDES NUMBER	
PEBLO/CASE MANAGER NAME (PLEASE PRINT)		EAS/EAOS	MOS/DESIGNATOR
PEBLO/CASE MANAGER PHONE		PEBLO/CASE MANAGER EMAIL	
PEBLO/CASE MANAGER SIGNATURE		CURRENT DATE	
Place Case in this Order: (Initial Yes/No Box)	Yes	No	Remarks
1. IDES Package Checklist (This Form)			
2. VA Pilot Referral Sheet			
3. VA 21-0819			
4. NAVMED 6100/ 1 (Cover Sheet): 2 MD Signatures & Date, CA Signature & Date, P Signature if indicated			
5. MEBR/NARSUM: Name & Last 4 SSN Match, MD Signature (PA/NP must have MD co-sign), Referred diagnosis listed clearly - Must be dated within 6 months			
6. NAVMED 6100/2 (for MEBR/NARSUM): Circle intent, date, & initial, SNM signature, memo (if no SNM signature)			

## Track Case Issues





# Physical Evaluation Board Results



- Reduced intake to VA notification from 34 to 11 days
- Reduced VA response to PEBLO notification from 21 to 9 days
- Reduced service member response to service HQ notification from 6 to 5 days
- 36 days per case reduction in processing time for 8,205 cases
- 809 person years reduction in non-value added wait time

The seal of the Department of Defense Military Medicine is centered in the background. It is a circular emblem with a yellow outer ring. Inside the ring is a blue circle containing a white caduceus (a staff with two snakes and wings) superimposed over a world map. The words "MILITARY MEDICINE" are written in white along the top inner edge of the blue circle, and "WORLDWIDE CARE... ANYTIME" is written along the bottom inner edge.

Project Overview

# **Comprehensive Combat and Complex Casualty Care (C5)**

RWTF Presentation

2 April 2013



# Task Force Questions

1. The Task Force received a briefing on C5 in April of 2011. What changes to the program have occurred since then based on your evaluation?
2. What best or promising practices has C5 established that could be replicated by other programs caring for RWs for medical care?
3. Also, practices in non-medical and medical case management and transition services? as opposed to medical care.
4. What major challenges does your program face?



# Comprehensive Combat and Complex Casualty Care

- Project Background Statement:

*“Identify benefits and resource requirements of the C5 program to ensure continued world-class rehabilitative care of Wounded Warriors and family members and other C5 patients in light of probable volume and funding fluctuations.”*

- Timeline:
  - Phase 1 Project – Oct. 2011-Aug. 2012



# Deliverables

1. **FACET** – Forecast And Capacity Evaluation Tool  
for resource planning
2. **C5PMA** – Program Management Aid for patient  
tracking, progress monitoring and reporting
3. **Guide for Patients with Lower Limb Amputation**



# Forecasting and Capacity Evaluation Tool (FACET)

## Input

- **Patient population**
  - Number of arrivals
  - Timing of arrivals
  - Patient mix

## C5 Forecasting and Capacity Evaluation Tool (FACET)

Anticipated Appointment Demand

Provider Capacity

## Output

*Provider requirements by department over time*



# FACET Design Process

## Tool design steps:

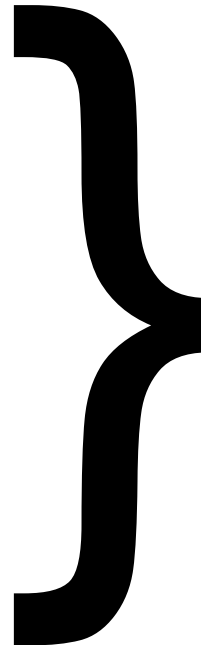
1. Categorize patients into meaningful groups
2. Summarize patient episodes of care
3. Understand provider capacity
4. Study arrival pattern
5. Study patient mix
6. Build the FACET tool to combine all of the above items and permit “what if” analysis and modeling



# Patient categories

## Analyzed historical resource use by patient type

- Bilateral amputation
- Unilateral amputation
- Other amputation
- TBI
- Gun shot wound
- Multiple limb fracture
- Nerve damage
- Back injury
- Fracture
- General



### ■ **For each category:**

- What services do these patients use?
- When do they use these services during their recovery?
- How long do they require care?

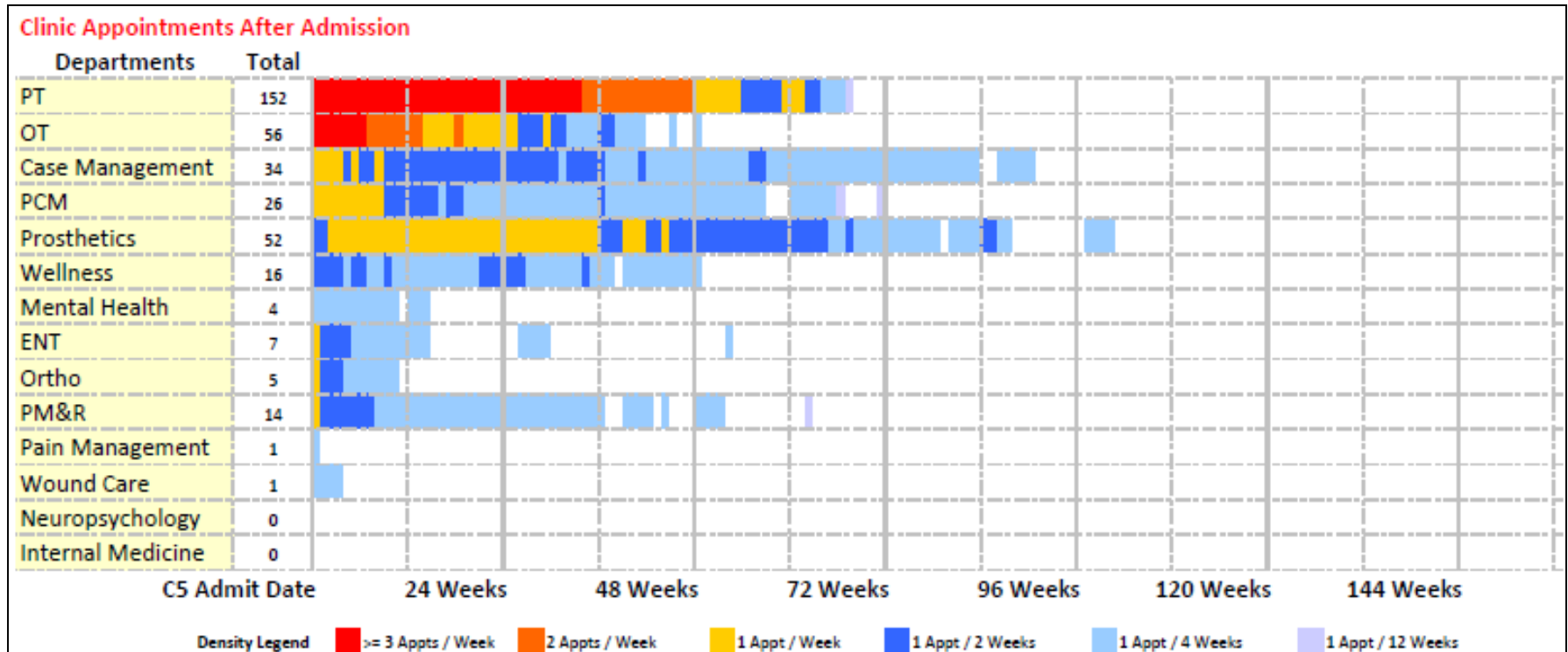


# Episode of Care Bilateral Amputation

## Frequency of Care Provided by Resource by Phase of Care

### Bilateral Amputation 70%tile Care Pattern

Summary of: 56 Patients



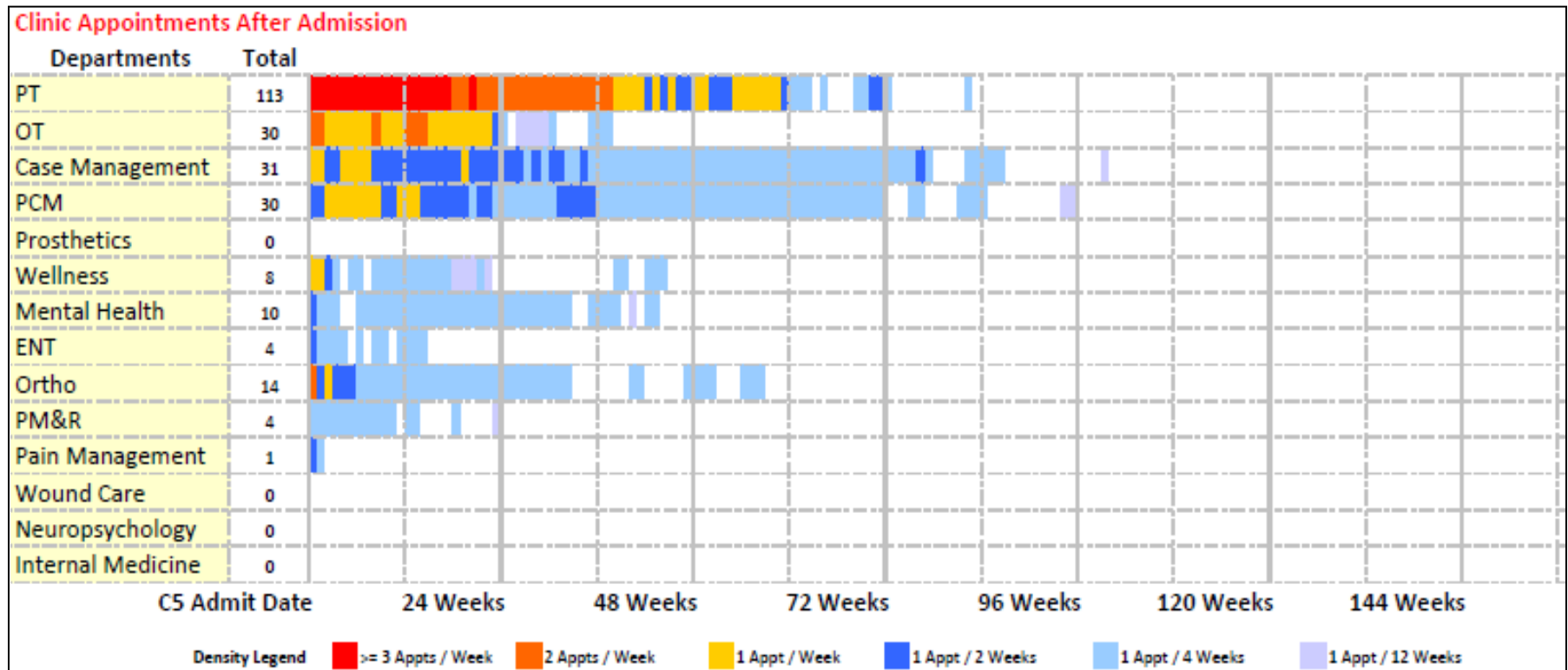


# Episode of Care Multi-Limb Fracture

## Frequency of Care Provided by Resource by Phase of Care

### Multiple Limb Fracture 70%tile Care Pattern

Summary of: 34 Patients



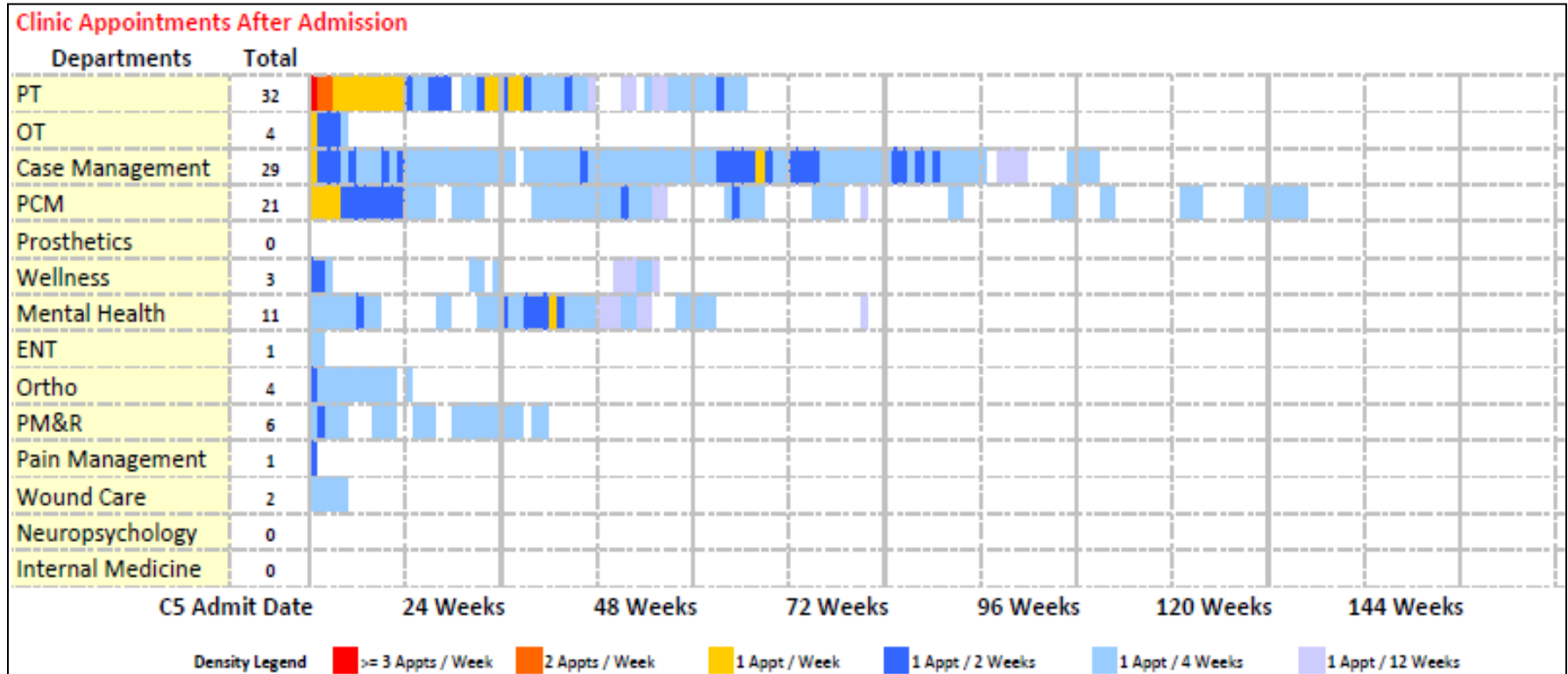


# Episode of Care Gun Shot Wound

## Frequency of Care Provided by Resource by Phase of Care

### Gun Shot Wound 70%tile Care Pattern

Summary of: 18 Patients





# Provider Capacity

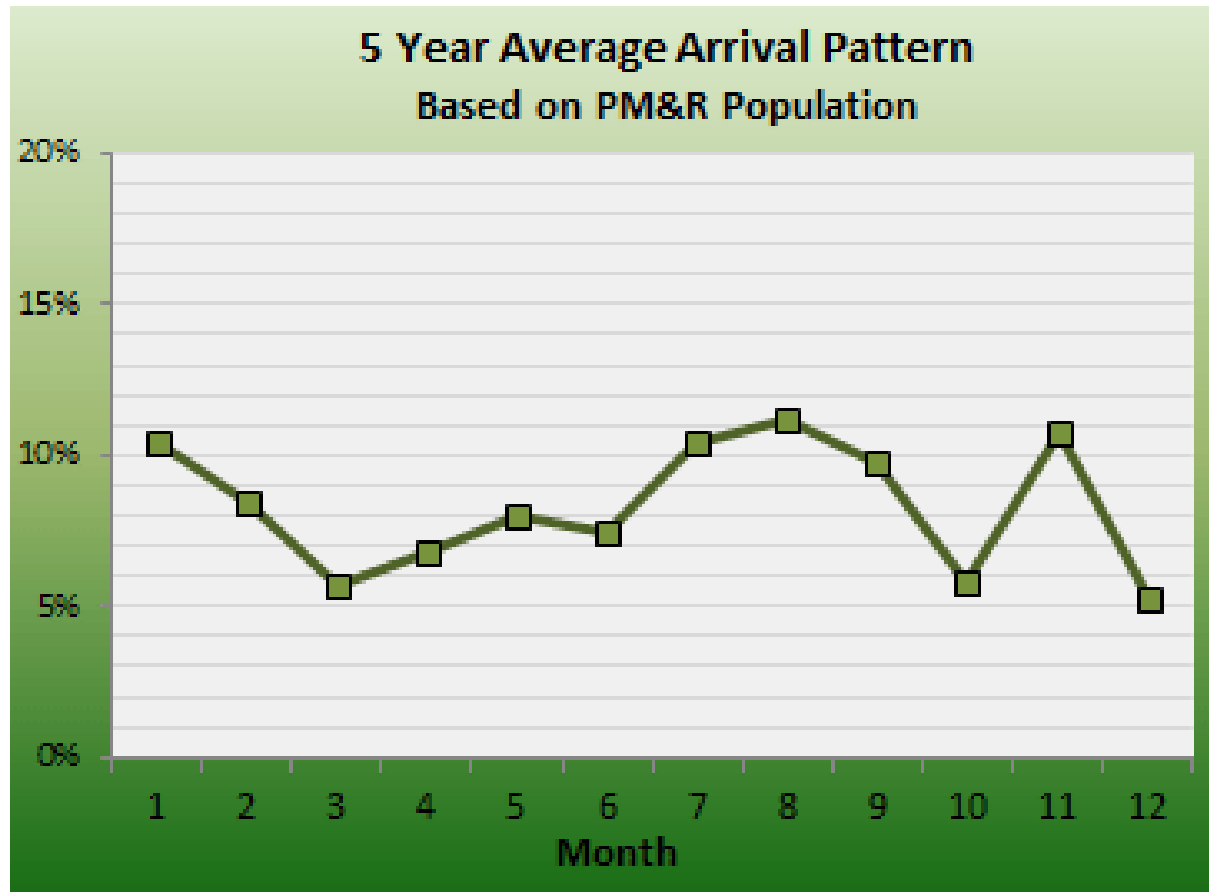
- Analyzed historical weekly appointments per provider in critical departments to assess capacity

Department	Average	50th Pct	60th Pct	70th Pct
Case Mgt	14	13	15	16
ENT	34	33	37	41
Internal Med	25	22	25	28
Mental Health	24	21	24	28
Neuropsychology	6	6	7	7
Occ Th	40	41	43	46
Ortho	44	41	45	51
Pain Mgt	36	35	38	40
Phy Th	35	34	38	42
PM&R	24	24	26	28
Primary Care	33	31	35	40
Prosthetics	29	28	31	34
Wellness	50	42	48	56
Wound Care	54	54	57	58



# Patient Arrival Pattern

- Analysis of patient arrival pattern to provide tool baseline





# Demonstration of the FACET

## C5 FACET

User

Population

Patient Arrivals

Patient Mix

Summary

What population are we planning for?:

### PM&R Population

Patient Categories	Jan	Feb	Mar	Apr	May	Jun	July
Back Injury	0	0	0	0	0	0	0
Bilateral Amputation	0	0	0	0	0	0	0
Gun Shot Wound	0	0	0	0	0	0	0
Multiple Limb Fracture	0	0	0	0	0	0	0
Nerve Damage	0	0	0	0	0	0	0
Other Amputation	0	0	0	0	0	0	0

This option will include a subset of C5 patients who have utilized the PM&R service and includes patients who require long-term rehabilitation care. For a further explanation, please see the user manual.

### Total Population

Patient Categories	Jan	Feb	Mar	Apr	May	Jun	July
Back Injury	1	1	1	1	0	3	2
Bilateral Amputation	0	3	2	3	0	1	7
Gun Shot Wound	1	1	1	1	1	1	4
Medicine NEC	3	4	5	8	2	1	6
Mental Health	5	2	3	1	3	1	0
Multiple Limb Fracture	4	1	3	2	0	3	4

This option will include all patients in the C5 program. A detailed explanation is included in the user manual.

Back

## Step 1:

- Enter planning population
- PM&R Population



# Demonstration of the FACET

**C5 FACET**

UserPopulationPatient ArrivalsPatient MixSummary

**What is the annual arrival volume?**

**What is the monthly patient arrival pattern?**  
☒ 2011 Arrival Rates   
☐ 5 Year Arrival Rates  
☐ Constant % Arrival Rates  
☐ Manual Input of Arrival Rates

**Manual Input Table**

	Number	% Change		Number	% Change
January	<input type="text" value="10"/>	<input type="text" value="0"/>	July	<input type="text" value="18"/>	<input type="text" value="0"/>
February	<input type="text" value="8"/>	<input type="text" value="0"/>	August	<input type="text" value="8"/>	<input type="text" value="0"/>
March	<input type="text" value="10"/>	<input type="text" value="0"/>	September	<input type="text" value="3"/>	<input type="text" value="0"/>
April	<input type="text" value="11"/>	<input type="text" value="0"/>	October	<input type="text" value="9"/>	<input type="text" value="0"/>
May	<input type="text" value="3"/>	<input type="text" value="0"/>	November	<input type="text" value="9"/>	<input type="text" value="0"/>
June	<input type="text" value="8"/>	<input type="text" value="0"/>	December	<input type="text" value="3"/>	<input type="text" value="0"/>

\* % Change by month is based on the monthly arrivals in 2011  
\* Numbers are rounded for display purposes  
\* % Change may exhibit small discrepancies due to integer rounding

BackNext

## Step 2:

- Enter patient arrival info
- Arrival Volume: 200**
- Arrival Pattern:**  
2011 Arrival Rates



# Demonstration of the FACET

**C5 FACET**

UserPopulationPatient Arrivals**Patient Mix**Summary

What is the mix of patient categories?

☐ 2011 Category Mix

☐ 5 Year Category Mix

☒ Manual Category Mix

Show Graph

All Values in percents (%)

Back Injury:	0	Multiple Limb Fracture:	10
Bilateral Amputation:	40	Musculoskeletal:	0
Fracture:	10	Nerve Damage:	0
General:	0	Other Amputation:	0
Gun Shot Wound:	0	Traumatic Brain Injury:	0
Medicine NEC:	0	Unilateral Amputation:	40
Mental Health:	0	Wound NEC:	0

Total %: 100%

(Total must add up to 100)

Set all to 0

Note: you may change specific category numbers (by month, by category) in the 'Patient Mix' sheet that is created by the completion of this form.

BackFinish

## Step 3:

- Enter patient mix
- Manual entry
- Patient mix:
  - 40% Bilateral Amputation
  - 40% Unilateral Amputation
  - 10% Fracture
  - 10% Multi-Limb Fracture



# Demonstration of the FACET

**C5 FACET**

UserPopulationPatient ArrivalsPatient MixSummary

You have chosen the following options:

User: BUMED (POM)

Population: PM&R

Annual Volume: 200

Monthly Arrivals: 2011

Category Mix: Manual

If you would like to change your selected options, click a button to take you to the corresponding page. When finished, click the button below to view the 'Patient Mix' sheet in preparation for running the forecast.

Display Monthly Arrival Numbers by Patient Category

## Run Forecast

- Summary Screen
- Forecast using 70<sup>th</sup> %tile Demand

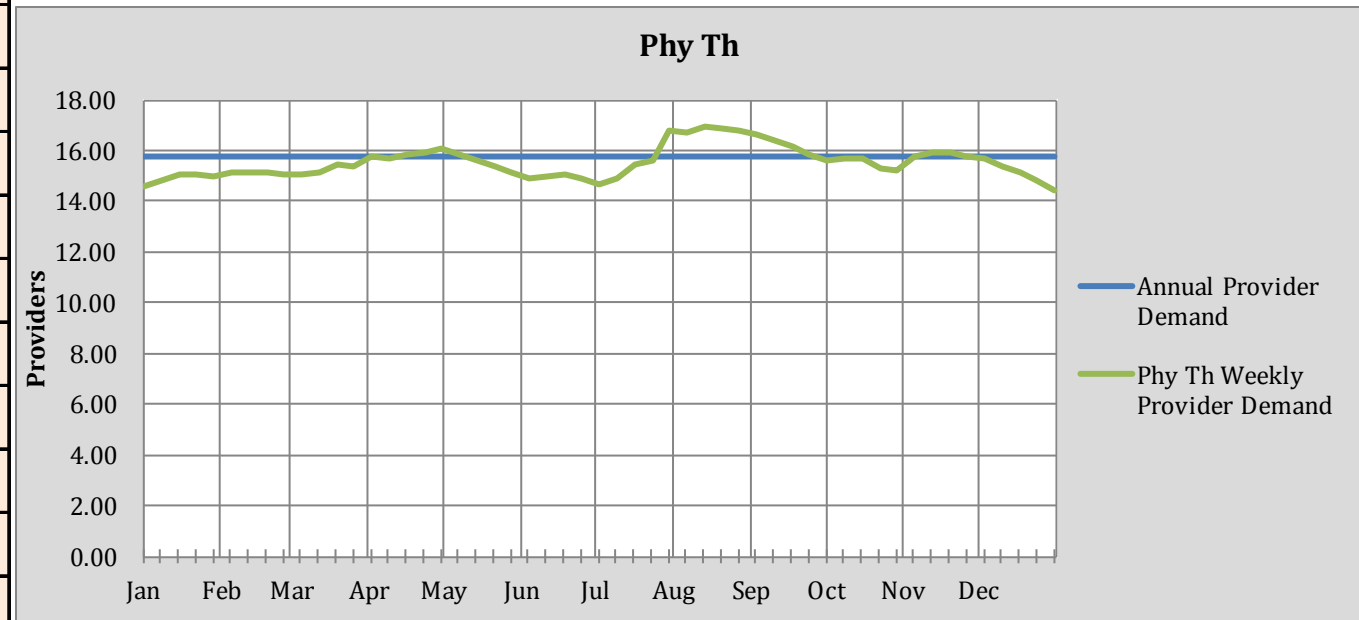


# Demonstration of the FACET

Department	Provider Demand
Case Mgt	8.4
ENT	0.6
Internal Med	0.0
Mental Health	0.6
Neuropsychology	0.0
Occ Th	4.0
Ortho	0.7
Pain Mgt	0.1
Phy Th	15.7
PM&R	1.9
Primary Care	3.0
Prosthetics	6.7
Wellness	1.1
Wound Care	0.0

## Model output:

- Number of providers needed
- By clinical specialty
- By week





# FACET Application

- Today:
  - Resource projections based on NMCS D patient population and treatment patterns
- Future Potential:
  - DoD/VA enterprise level resource planning
  - Coordinating the impact of patient handoffs
  - This requires technical assessment of:
    - Different patient populations
    - Different practice patterns



# Deliverable 3: A Guide for Patients with Lower Limb Amputations

An interactive educational guide for patients with lower limb amputations.

- ❖ Interviews with NMCS D staff, providers, and patients
- ❖ Historical patient appointment data
- ❖ *Amputation Coalition* website
- ❖ VA/DoD CPG for Rehab of Lower Limb Amputation
- ❖ DVBIC *Mild Traumatic Brain Injury Pocket Guide*
- ❖ *Make the Connection* website for PTSD
- ❖ NMCS D website
- ❖ Current VA guide given to amputation patients
- ❖ Staff-created literature already in existence



## A Guide for Patients with Lower Limb Amputations

Unilateral and Bilateral  
Below Knee and Above Knee





# A Guide for Patients with Lower Limb Amputations

## A Guide for Patients with Lower Limb Amputations

Unilateral and Bilateral  
Below Knee and Above Knee





# A Guide for Patients with Lower Limb Amputations

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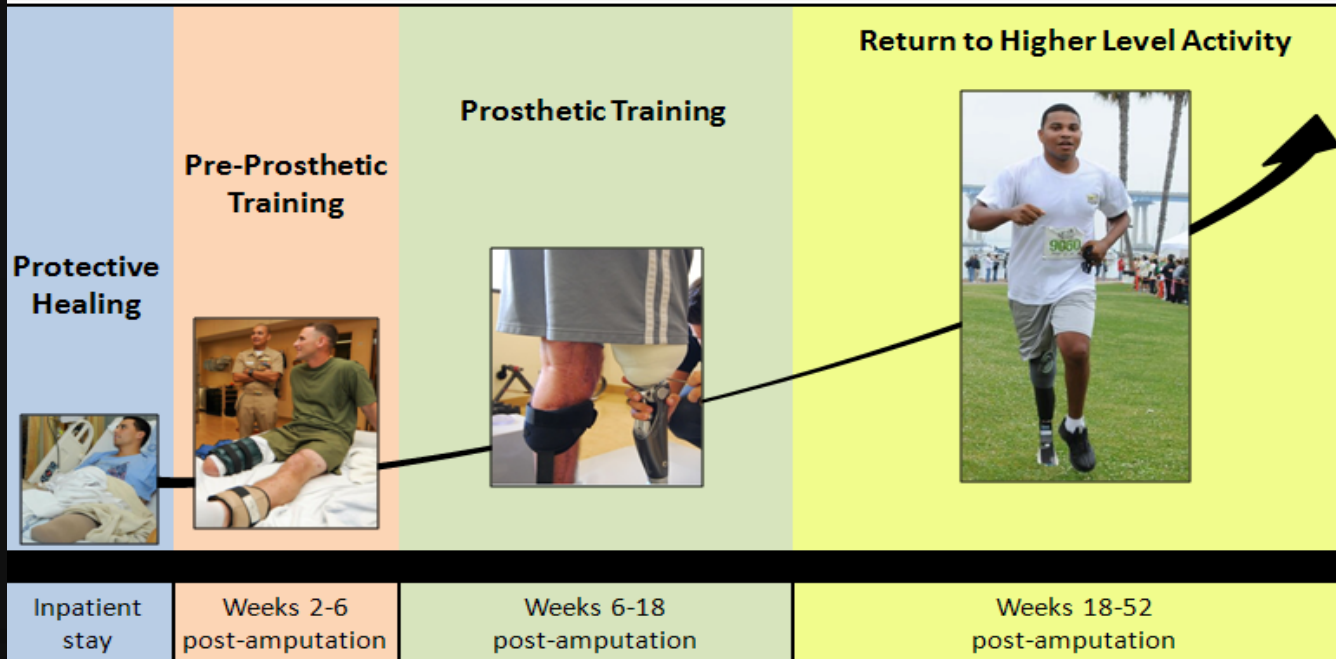


HOME



# A Guide for Patients with Lower Limb Amputations

## PRIMARY REHABILITATION TIMELINE



REHAB  
TIMELINES



**Thank you**

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