

# *Reduction in Gross Accounts Receivable By Reducing Delays In Documentation, Coding and Billing At SMDC in Duluth, MN*



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## About SMDC Health System, Duluth, Minnesota

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- **SMDC Health System** serves a regional Midwest population of 460,000
- 17 locations with 4 fully-owned hospitals and the 400+ physician multi-specialty Duluth Clinic

*Mission:* To bring the soul and science of healing to the people we serve.

*Vision:* Working together with our patients and communities, we are creating the next generation of integrated health care.



# The Project Team

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- VP, Revenue Services – **Project leader**
- Director of Decision Support – **Project leader**
- Director of Finance – **Project leader**
- Manager of Health Information Services
- Records Analysis Clerk



# The Problem

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- Dollars in accounts receivable (A/R) had increased in the discharged, not final billed (DNFB) portion of active A/R over the past 12 months.
- By reducing delays in documentation, coding and billing, gross A/R could be reduced by 2 gross days revenue outstanding (GDRO) .
- One GDRO = \$1.8M.



# Project Goals

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- Develop a dashboard to measure and monitor the key processes affecting DNFB.
- Reduce the gross days revenue outstanding (GDRO) by 2 days by April 2009.



# Root Cause Analysis of the Problem

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**Brainstorming techniques and the 5 Whys methodology helped the team identify the following issues:**

- Insufficient weekend staffing.
- Discharge report was printing in the morning after records had been retrieved from the floor. Staff was going back to the floor to find the missing records.
- Staff was not adequately cross-trained. For some functions, only one or two people were trained, which caused delays in processing when people were on vacation or out ill.
- Unnecessary steps were being completed on the charts once they reached the HIS department, which caused delay in processing.



# Addressing Root Causes

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- A PICK chart (shown on next slide) was used to evaluate improvements.
- The project involved approximately 475 worker hours, equaling approximately \$19,000 in salary costs (475 x \$40 per hour).





# Addressing Root Causes

LEAN PROCESS: DISCHARGE TO SCANNING	
PICK CHART - TOOL TO PRIORITIZE IDEAS TO IMPLEMENT	
Benefit	
High	Low
Easy	
<ul style="list-style-type: none"> <li>1. Cross Train the Analysis Function</li> <li>2. On Demand Report of Discharges and also add field of old/new patient</li> <li>3. Place Charts on Shelf after picked up from floor instead of put on desk</li> <li>4. Weekend staffing - target 4/01/09</li> </ul>	<ul style="list-style-type: none"> <li>1. Go to Doc View for Documents</li> </ul>
Ease of Implementation	
	Implement Possible
	Consider Kill
<ul style="list-style-type: none"> <li>1. Change Process order to : Assemble Analyze Scan</li> <li>2. Go to Doc View for Documents (Themis a record management tool) depends on Coding Process</li> <li>3. Place Charts on Shelf after picked up from floor instead of put on desk</li> <li>4. "U" Shaped Cell</li> <li>5. Heijunka</li> </ul>	
Hard	



# Net Return on Investment of the Project

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- Lead time was improved 44% from 8 days to 4.6 days.
- This resulted in a reduction in gross days revenue outstanding by 2.75 days, improving cash on hand by over **\$5 million**.
- The financial benefit on interest income annually was **\$152,831**.



# Monitoring and Evaluating the Process Over Time

## DISCHARGE TO SCANNING - DNFB A/R COUNTERMEASURE PLAN WORKSHEET

Process Step	Action Step	Result of Action Step	Responsible Person	By When
Assembly	Determine root cause of delay. Examples staffing, machine, population size. Assess staffing and only use overtime if necessary. (Majority of the time it is staffing.)	Additional staffing hours	Kerri Mesia	Call in addt'l staff same day metrics out of compliance
Scanning	Determine root cause of delay. Examples: staffing, machine, population size. Assess staffing and move resources as required.	Move resources	Kerri Mesia	Same day
Analyzing	Determine root cause of delay. Examples: staffing, machine, population size. Assess staffing and only use overtime if necessary. (Majority of the time it is staffing.)	Additional staffing hours	Kerri Mesia	Call in addt'l staff same day metrics out of compliance



# Current and Future State Value Stream Maps

## Discharge to Scanning New Current State Value Stream Map

**Project Name:**  
DNFB A/R Reduction  
in Discharge to  
Scanning

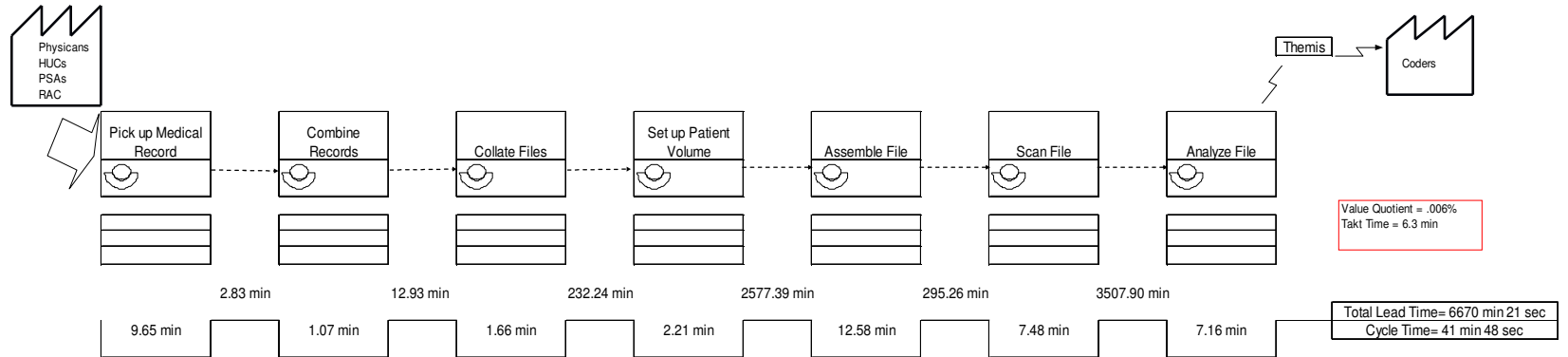
**Project Leader:**  
Kyle Dorow  
Ruth Martin  
Dan Trustem

**Team Members:**  
Barb Trempe

Peggy Lundgren  
Gemma Moon  
Kelly Calore  
Kerri Mesia

**Sr. Process Expert:**  
Kri Henry

**Sponsor:**  
Bert Norman



## Discharge to Scanning Future State Value Stream Map

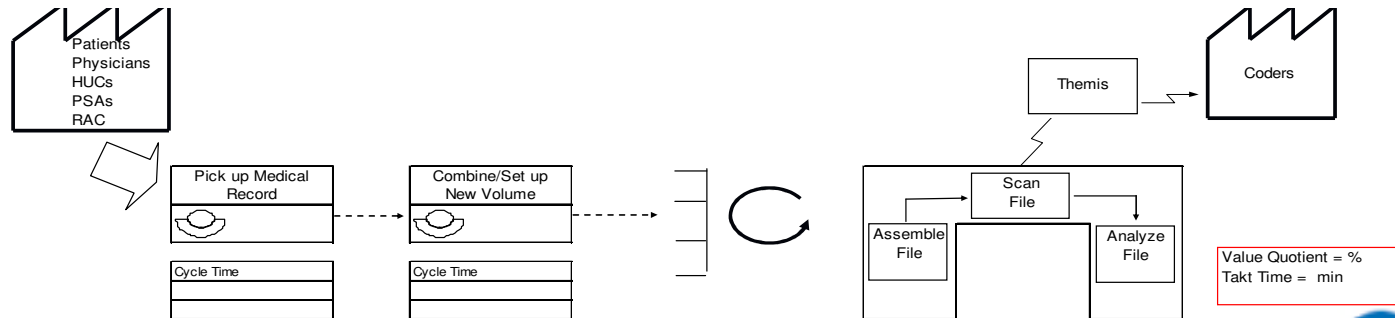
**Project Name:**  
DNFB A/R Reduction  
in Discharge to Scanning

**Project Leader:**  
Kyle Dorow  
Ruth Martin  
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**Team Members:**  
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Peggy Lundgren  
Gemma Moon  
Kelly Calore  
Kerri Mesia

**Sr. Process Expert:**  
Kri Henry

**Sponsor:**  
Bert Norman



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- Learn more about SMDC: [www.smdc.org](http://www.smdc.org).
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