Taking charge of change
Laboratory transformation at Health First
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Brief biography

System Director of Laboratories, Health First

Director of Respiratory, Pulmonary Function Test, and Electroencephalography Systems, Health First

KEY ACCOMPLISHMENTS

- Improved outreach for lab system with 5 new facilities and new revenue in excess of $2M/yr
- Reduced reference laboratory costs >$500K/yr
- Reduced COPD readmissions by 15% from FY13 baseline
- Achieved Premier top-quartile productivity in 2014
- Achieved 99th percentile in patient satisfaction using Studer Group methodologies
- Experienced with Lean and Six Sigma methodologies
About Health First

Fully integrated, not-for-profit health system

~1,000 total beds and ~5M CC/IA tests performed annually
Key challenges facing Health First
Surviving reimbursement and healthcare reform

$20M reduction in Medicare reimbursement

Pressure to cut expenses to break even

The new healthcare economy brings future uncertainty and requires hospitals to do more with less and adopt new cost-saving models
Implementing cost control strategies

Protection of future margins

- Standardize practices across clinics and sites of care
- Reduce growth rate of expenses
- Use purchasing processes that maximize value
- Minimize unwarranted (unnecessarily expensive) care variation
- Implement lower-cost, high-quality patient care staffing models
- Hold employees accountable for health costs
Protecting the future
Leadership sets the tone

“If institutions can’t reduce costs dramatically while improving quality, they just won’t survive. It’s pure and simple…The way forward—one part at least—is clear: practice evidence-based medicine. We believe it’s better to deliver more value and reduce unnecessary costs than to lay off people.”

HEALTH FIRST OVERARCHING GOALS

- Sell patient value
- Tighten care variation
- Reduce cost by eliminating waste

Scott Gettings, MD
SVP and Chief Medical Officer, Health First

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Case study #1

Blood bank
Developing a plan

Health First blood bank

A plan for cost reduction

1. Take stock of baseline facts and figures

2. Establish a system-wide goal

3. Build advocacy and demand

4. Obtain buy-in approval from administration

Baseline parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of units supplied</td>
<td>27,664</td>
</tr>
<tr>
<td>Average Hb level of patients receiving blood unit(s)</td>
<td>8.5 g/dL</td>
</tr>
<tr>
<td>Total blood transfusion related costs</td>
<td>$4,938,889</td>
</tr>
</tbody>
</table>
Setting a new standard

**Blood management parameters**

Transfusion criteria in hospitalized, stable patients

<table>
<thead>
<tr>
<th>Health First old guideline</th>
<th>AABB national guideline standard</th>
<th>Health First new guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;8g/dL</td>
<td>7-8g/dL</td>
<td>&lt;7g/dL</td>
</tr>
</tbody>
</table>

**Physician pattern**

Symptoms of anemia and not Hb concentrations alone (range: 6-14 g/dL)

**Recommendation**

Adherence to restrictive transfusion strategy

From evidence-based literature

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Transfusions pose significant risks to patients

Blood overutilization is an unnecessary, non-value-added cost
Holding physicians accountable

Follow-up calls for nonadherence

Joseph Gurri, MD
Vice President, Medical Affairs
Holmes Regional Medical Center

CHALLENGES

Moving laboratory techs out of their comfort zones

Changing physicians’ mindset

REINFORCEMENT

Management reinforces the value and importance of the new guideline change

PROGRESS

Increased laboratory scientist confidence and value

Increased physician adherence
Tracking adherence

Daily reports and audits of ordered transfusions

Review list of transfusions and remove entries with valid reasons

<table>
<thead>
<tr>
<th>Ordering physician</th>
<th>Patient Hb level</th>
<th>Reasons for transfusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowden, William</td>
<td>9 g/dL</td>
<td>Symptoms of anemia</td>
</tr>
<tr>
<td>Brown, Charles</td>
<td>24 g/dL</td>
<td>Trauma patient</td>
</tr>
<tr>
<td>Cage, Betty</td>
<td>8 g/dL</td>
<td>Symptoms of anemia</td>
</tr>
<tr>
<td>Carson, John</td>
<td>7 g/dL</td>
<td>Symptoms of anemia</td>
</tr>
<tr>
<td>Cortez, Jose</td>
<td>12 g/dL</td>
<td>Surgery patient</td>
</tr>
<tr>
<td>Daniels, Melinda</td>
<td>10 g/dL</td>
<td>Symptoms of anemia</td>
</tr>
</tbody>
</table>

Remove entry: Valid exclusion criteria

Remove entry: Hb level within new guideline

Remove entry: Valid exclusion criteria
Escalating and documenting review findings

Monthly reports and letter notifications

Chief Medical Officer reviews reports and makes final determination

“You gave two units, do you think you could have given one?”

“We don’t see a good reason for the transfusion, so please consider guidelines because your actions are akin to liquid transplant.”

“You transfused to exception of the recommended parameters. That might be okay, but you didn’t document that reason.”

Build physician awareness and ask questions that encourage physicians to think about their actions and change practice patterns

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Experiencing results

Awareness and acceptance

Number of letters sent over a 12-month span

Proactive conversations that reflect awareness

Hey, I transfused one patient with a 7.1 g/dL Hb level but it’s only because he was bleeding quite a bit.

It’s okay. You’re good.
Measuring success
Proof in the numbers

Savings gained*

9,000 units of blood
$1.44 million/year

“The amount of cost with blood transfusion is unbelievable. It’s unnecessary...and this is just one department: the laboratory. Imagine if every department did their part in the hospital....We could definitely achieve a major reduction in today’s healthcare costs.”

*2012 through 2013.
Case study #1 completed

Summary

- Changes in healthcare reform and reimbursement
- Health First pressured to cut expenses
- Leadership sets new goals to protect the future
- New blood management guidelines established
- Accountability through tracking and documentation
- Cost savings realized: 9,000 units of blood = $1.44M

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Laboratory leadership

*It starts with you*

“It’s all about the laboratory. The beauty of this is that the laboratory came up with this and all the rest of us listened to them. This is a blood bank/laboratory leadership project. They were stellar.”

Joseph Gurri, MD
Case study #2

Clinical chemistry/immunoassay testing
Identifying the problem

Taking stock of existing instruments

EXISTING SYSTEMS

Siemens ADVIA Centaur® immunoassay system
Siemens Dimension® RxL Max® integrated chemistry system
Siemens StreamLAB® Automation solution
Roche cobas® 6000 system

EXISTING CHALLENGES

Different normal ranges
Physician dissatisfaction
Quality issues
Cost inefficiencies

EXISTING OPPORTUNITIES

System-wide standardization of clinical chemistry and immunoassays
Establishing system-wide goals

Primary and secondary objectives

**PRIMARY OBJECTIVES**
- Reduced cost
- Standardization

**SECONDARY OBJECTIVES**
- Automation
- Consolidation
- Quality
The path to change
18-month process

Month 1:
Identified need to standardize platforms and reagents for clinical chemistry and immunoassays

Month 3:
Met with five vendors for system presentations

Month 6:
Narrowed vendors down to three: Began site visits, engaged in truck presentations, and released request for proposal

Month 12:
Staff voted on chemistry systems

Month 18:
Implemented systems and achieved go-live on all four sites, simultaneously
Implementing new technologies to multiply ROI
Offers widespread benefits for clinicians, techs, and patients

<table>
<thead>
<tr>
<th>Standardization</th>
<th>Before</th>
<th>After</th>
<th>Added value</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-85% CC/IA samples resulted before 8:00am</td>
<td>&gt;90% CC/IA samples resulted before 8:00am</td>
<td>Earlier patient discharges and shorter lengths of stay</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Automation/Consolidation</th>
<th>Before</th>
<th>After</th>
<th>Added value</th>
</tr>
</thead>
<tbody>
<tr>
<td>14 analyzers across the system</td>
<td>10 analyzers across the system</td>
<td>Reduction in: • Cost of service contracts/calls • FTE workload</td>
<td></td>
</tr>
</tbody>
</table>

Bottom-line benefits

- $250K reduced FTE cost
- $500K annual savings
Going beyond the walls of the laboratory

Inter- and Intra-hospital collaboration

Live site visit to St. John Hospital and Medical Center inspires change in cardiac testing

Incorporated Troponin T—a 9-minute STAT assay—to improve cardiac TAT

Engaged cross-discipline teams (i.e., cardiology, ED) about higher sensitive assays

Prepared medical staff in all 4 hospitals for pre-go-live

Received positive responses system-wide

Helped to decrease hospital door-to-result time from 90 minutes to only 50 minutes
Goal alignment is essential
*From the C-suite to the laboratory*

Realizing success starts with agreement from all stakeholders

**HEALTH FIRST OVERARCHING GOALS**
- Sell patient value
- Tighten care variation
- Reduce cost by eliminating waste

**LABORATORY DEPARTMENTAL GOALS**
- Increase patient satisfaction
- Improve quality efficiency
- Boost financial stewardship
Ensure your goals are SMART

Helps you achieve key milestones and objectives

Specific Measurable Achievable Relevant Time-bound
Evidence of success

*Proof in the numbers*

**Reduced the Blood Bank blood and blood products utilization**
(by 28.7%/month)

**Decreased blood expense per adjusted patient day**
(from $16.71 to $16.14 [3.4%] for FY14)

**Reduced the Troponin TAT on ED STAT testing from received to report**
(from average ≤45 minutes in FY14, to ≤30 minutes by end of FY15)

**Maintained Troponin TAT on ED STAT testing from received to report**
(≤30 minutes average in FY15)
Blood bank and CC/IA
Key learnings on initiating change

Steps for success

1. Establish your VISION
2. Keep EMPATHY top of mind
3. Involve key STAKEHOLDERS
4. EXECUTE your plan
5. Measure and communicate RESULTS
Additional resource for lab leadership

LabLeaders.com

Learn essential insights and actionable strategies from today’s industry leaders

CURRENT LEADING TOPICS

- Redefining the value of lab leadership
- Running your lab like a business
- The laboratory’s 5 key customers
- 3 steps to building your own ROI

Transform today’s healthcare challenges into opportunities