Turning a Goose Into a Golden Egg
The Value of Leveraging Business Intelligence for Process Improvement

Joe Poppler
David Salsberry

Topics

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"What you don’t know can and will hurt you"

A Case Study: Unreported Income: NJ Family Care (NJFC) April 2007

- New Jersey’s Federal and State funded health insurance program for uninsured children and certain low-income parents and/or guardians for affordable health coverage.

- Provides no cost or low-cost health insurance through managed care enrollment to uninsured children and parents with income up to 350 percent of the poverty level.
A Case Study: Unreported Income: NJ Family Care (NJFC) April 2007 (continued)

- NJFC applicants are required to list all jobs, employers and non-work related income for each working person in the household on their application and provide proof of income.

- The authorized vendor reviews the documentation submitted and screens applicants against the state’s wage, disability, and unemployment databases to verify the income reported.
  - These databases do not include income from self-employment and/or rentals, interest, or dividends.

Case Study Results

A Computer match of all 86,600 cases with eligible participants (as of April 2007) with state tax files resulted in 60,800 cases (70.2%) where at least one household member filed a 2006 state tax return.

- 6,781 of the 60,800 cases (11.2%) had $10,000 or greater in unreported self-employment income

- A test of 70 of these cases disclosed that 21 of the cases (30%) failed to indicate self-employment status on their initial NFIC application.

- 18 of these 21 cases (85.7%) were ineligible

- 3 of the 18 (16.7%) failed to report self-employment incomes of $295,000, $186,000 and $177,700 as indicated on their 2006 state tax returns.
Case Study Results (continued)

- 873 cases with $85,000 or more in gross income reported it on their 2006 state tax return.
- 5 out of 25 cases had self-employment, rental, dividend or interest income that was not reported on their state tax returns.
- 1 of the 5 cases had eligible participants in the program throughout 2006 with unreported dividends of $137,000 and interest of $42,000 as indicated on their 2006 state tax return.
- 15 of the 25 cases had net gains of more than $100,000 on their 2006 state tax returns with 3 of them having more than $700,000.

"Nothing is so firmly believed as that which is least known"

- Francis Jeffery

Conclusion:

Primary contributing factor for fraud:

Underreported Income

- Net income for the self-employed
- Real Estate rental property income
- Interest income
- Dividend income
# The Solution:

IRS Verified Income Data delivered over a secure environment in 24-48 hours.

- Personal: 1040 all series
- Business: 1065-Partnership, 1120, 1120S
- W2, 1099 all series, 1098 all series, 5498

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**NCS**

One report provides IRS income verified data for making the right decision:

- Net income for the self-employed
- Real Estate rental property income
- Interest income
- Dividend income
- Wages, Salaries, tips
- Net income, Adjusted Gross Income
- Unemployment compensation
- Social Security Payments including disability payments
- Alimony & Child support payments
- Withdrawals from a traditional IRA or SEP-IRA
- Withdrawals from a 401K plan
- Tax delinquency investigation
- Failure to file penalty
- Failure to pay tax penalty
- Bad check penalty
- Fraud penalty
- Negligence penalty
- IRS litigation has been instituted
- Refund will be applied to non IRS debt: back child support, alimony or any debt owed to a Federal, Military or State agency
- Identity theft
- Deceased taxpayer
- Posted amended return
- Taxpayer making installment payments on balance owed to the IRS
- Back taxes payment installment default
- Federal tax lien
Leveraging Business Intelligence for Transformative Results

"The only way to make sense out of change is to plunge into it, move with it and join the dance"

- Allan Watts

- Helped to identify charity care and ability to pay within the self pay population
- Reduced the length of time to process an application
- Reduced burden on patients to provide copies of their tax return copies
- Reduced the number of required documents that applicants must “bring back”
- Increased applicant satisfaction with the eligibility process
- Standardized training: JPS Representatives were provided on-site training and follow-up regarding procedures for completing IRS Form 4506-T, submitting and retrieving the IRS tax transcripts

Leveraging Business Intelligence for Transformative Results (Continued)

- Provided JPS management with detailed weekly reports to help measure performance
- Reduced the number of ineligible applicants receiving charity care
- Eliminated the risk of relying on a copy of the applicant's tax return which may have been manipulated, altered or amended after being approved for charity care
- Created a customized platform for JPS management that allowed monitoring of JPS representatives to ensure compliance with daily production standards
- NCS provided more efficient automation of information collection
- Provided Income verification data from a reliable source (IRS) to assist in decision making
- Reduced paper documentation for low income applicants
Conclusions:

While one of the Lean Project Lessons Learned by JPS was "no matter where you get your information from, it will have bias in it".

- The NCS business intelligence provided to JPS comes direct from the IRS (the Holy Grail for Income Data), which helped to minimize that bias.

Roadmap for JPS Connections Process Improvement

The Need for Change
Eligibility Center Assessment

- Why Eligibility Center?
  ➢ “Big Rock”

- A preliminary audit identified the following themes:
  ➢ Lack of standardization
  ➢ Duplication of effort/rework
  ➢ Patient dissatisfaction (as relayed by employees)
  ➢ Need for resources and tools for each transaction and training

- Themes provided the direction for a rapid redesign process – Kaizen event

Eligibility Project Goals

1. **New Approach** – Apply the methodologies of Lean and Six Sigma to methodically assess the problems, identify root causes, and design a solution

2. **Engage Staff and Customer in a Meaningful Way** – Use this project to involve staff and customers in a serious and engaging way to fix the problem

3. **Fix the problem** – Develop a process that has predictable expectations for both patients and staff

4. **Continuously Improve** – Implement management reporting to support continuous improvement based on real-time data
Customer Focused

- External Customer definition
  - JPS Self Pay, Uninsured Tarrant County Residents

- Obtaining Voice of the Customer
  - Patient interviews, Staff Interviews, Midas, Health Promotions, staff who have family members on the Connections Program, and staff in the clinics

- Using Voice of the Customer
  - We recognized patient’s concern regarding the length of time to process an application, the difficulty understanding the verbiage on the application, and the burden placed on the patients to provide the required paper documentation
  - Front-line staff were functioning in very siloed environment – variation in interpretation and application of requirements

Redesign Approach and Context

- The names and terminology will change:
  - Total Quality Management, Continuous Quality Improvement, PDCA, Lean or Six Sigma

- The fundamental principles and methodologies remain the same:
  - Focusing on the customer will force our processes to deliver more value
  - The more we measure and use real data to inform decisions – the more value we can extract from each process and interaction
  - Reduction in variation will drive efficiency and cost-effective care delivery
  - Involving those who do the work can only improve the process of change and outcome
  - Performance improvement is most effective when adopted by leadership and reflected in the organizational culture
Kaizen Redesign

- Kaizen – Japanese for “improvement”
  - Represents a Lean approach to process redesign and improvement

- Event that engaged the full spectrum of the eligibility center team

- Focused on a detail current state assessment of process, variability, and poor outcomes

- Engaged staff in brainstorming a broad spectrum of short and long term opportunities for improvement

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JPS Eligibility Process

1. Patient applies for JPS Connections
2. JPS receives application/documents and reviews for completeness
3. Eligibility Specialist evaluates application
4. Eligibility Specialist makes and communicates decision
5. Coordination mailed to patient
6. Appeals Process (and Audit)

- Some people don’t have documents or capability to assist. i.e. Safe Haven for battered women, other who do. In some areas, this is not governed.
- Age of decision is what documents are needed and how evaluated. Some have flexibility, some don’t. Makes predictable for applicants.
- No followup for expiring memberships
- Appeals & Audits could help identify training needs
Receiving Process As Is Process Model (Example)

11 Customer Focused Improvements – Opportunities To Reduce Variation

**Issues / Findings**

<table>
<thead>
<tr>
<th>Theme</th>
<th>Small Sample of Noted Issues</th>
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| Lack of standardization | • Variation in document requirements and evaluation criteria by Eligibility Specialist (some Approve 100% of applications, some Deny 100%)  
• Wide variation in cycle time to complete applications, from 30 min to 45 days (most time waiting for patients to provide documentation)  
• Specialists don’t receive standard training; learn from experience on the job |
| Duplication of effort/rework | • Electronic documents printed, then rescanned  
• Patients do not provide required documents; estimated 1 in 10 meet “bring back” requests causing repeated bring back letters  
• Applications or support documents may be sent to separate Eligibility Specialists  
• JPS reproduces the analysis MASH does on ED cash patients |
| Patient dissatisfaction (as relayed by employees) | • Consider the application process onerous and intrusive; frequent complaints regarding documentation requirements (cases with 50 pages of documentation)  
• Process takes too long  
• Not informed of progress with the application or when they are termed  
• Paper membership “cards” which are sometimes not accepted with a “PIN” instead of MRN |
| Resources and tools | • Multiple systems being used to document; increases work and cycle time  
• New systems regarded as substantially worse, less functionality and more work/steps (functionality may not be being utilized)  
• Not all resources are known or utilized by all Specialists |
Opportunities for Improvement

Short term improvements that can be implemented almost immediately:

- Standardization of the workflow to reduce variation
- Consistency of the evaluation process with training and clearly defined and communicated policies
- Improved utilization of existing systems to facilitate information collection and documentation
- Reduction of applicant requirements through changes in policy
- Improved process metrics through better utilization of Audit

Potential longer term improvements leveraging technology:

- Better automation of information collection and documentation
- Reduction of applicant requirements through use of other data sources and technology
- Memberships cards with electronic data

What came of the Kaizen Event and Assessment of the Application Process?

The “take aways” from the Kaizen event — Patient and staff views of the process, root cause issues, systems and information access, problem solving with the patient in mind, brainstorming ideas and other areas of impact.

- Solution:
  - Develop a standard process/workflow
  - Focused solution in 6 key areas – legal status, insurance, address, low income programs, income, and asset check
  - Application design with consideration of reading level for the client and in different languages
  - Leverage public and commercially available datasets to reduce the burden of information provided by the client

- Aim
  - Clear requirements for completing an application
  - Same day, real time approval with a completed application
  - Client focused staff (versus a process focused staff)
Key Elements of the Eligibility Application Workflow Process

- "Client" focused in what we do – In process, in how we approach applicants, and what we expect of our enrollment team

- Simplified application process built on standard work flow requirements and an application now available in 4 languages (English, Spanish, Vietnamese, & Arabic) and designed on a 4th grade reading level

- Leverages multiple data sources – Experian, TWC, HDX, Google Maps, TAD, tax transcripts

- Reduces the paper documentation required for 60% of our applicants (ID, homeless/low income documentation, 4506T)

- Flexible to clinic or site requirements – Can be administered on a scheduled visit basis, as walk ins, mail in or a combination of all

- The process did not require significant modification to allow for the integration of those applying for an exchange product

The Payoff - Achieving Performance Excellence
Keys to Performance Management

- Direction and focus — Board and Senior Leader Support

- Active daily management
  ➢ Leadership Rounding
  ➢ Daily Huddles

- Objective management & reporting
  ➢ Understand current process performance within assigned departments/units
  ➢ Standard work for managers

- Alignment
  ➢ Big Data
  ➢ Analytics
  ➢ Standard Work

Results of the Connections Redesign Project

- Reduction of calls to the Eligibility Center: 65%
- Call abandonment rate: 50.5% to 6.1%
- % of applications process on the same day: 70%+
- Reduction of Backlog of Applications: 7,281 to 442
JPS Connection Enrollment

Team Impact in a LEAN Culture

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<tr>
<th>Traditional</th>
<th>LEAN</th>
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<tbody>
<tr>
<td>Customer demands are unrealistic</td>
<td>Customer satisfaction measures continually met</td>
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<tr>
<td></td>
<td>Empowered workforce- any means necessary to meet/exceed customer expectation/intended outcomes</td>
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<tr>
<td>Measures not linked to strategy</td>
<td>Teams have clear understanding of goals</td>
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<tr>
<td>Individual accountability</td>
<td>Team and cross functional accountability.</td>
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<tr>
<td>Unclear job</td>
<td>Well defined and standard work</td>
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<tr>
<td>Few cross functional relationships</td>
<td>Open communication and information flow</td>
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<tr>
<td>Absence of structured continuous improvement methods</td>
<td>Strong employee input, passion for continuous improvement; structured PI methods imbedded</td>
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Leaders Role in Transformation

- Leaders must be visible— Department management, executive sponsor, CEO, and Boards
- Leaders need to stay engaged (rounding)
- Understand that goals, strategies, and objectives cascade downward and allow feedback and solutions to flow upward
- Leaders need to model a “trust but verify” attitude with those leading the change
- Staff need real time performance management

Connections Project Lessons Learned

- Understand that everything we do is going to have something wrong, the key is how do we reduce uncertainty? Cannot rely on intuition. The goal is to reduce the risk of being wrong.
- This is best implemented by staff and leaders who have a healthy respect for knowing what you don’t know
- No matter where you get your information from, it will have bias in it. All decisions have an element of incorrect data. Know your data source
- Complex systems in healthcare can be non-linear and unpredictable
- A decision is not a decision until we act
- 2 types of people — Those who work and those who take credit for work. Its better to be in the first group because there are fewer people in that group.
Just What is “Big Data”? 

- Big Data defined – There is no commonly accepted definition. And by the way, this is not about technology

- Is it hype or reality? – The evidence is becoming more clearer that leveraging big data correctly can create significant business value

- The proliferation of smartphones, iPads, and other devices has generated an enormous amount of data yet to be analyzed

- The real issue is the way we use technology is driving fundamental shifts in the way we work, play, interact with others and transact business

- Big Data, when strategically assembled and accessed in a way unique to our specific business needs, can open an entire new world of opportunity and accelerated results
External data sources serve as the heart of the Connections process

- The Self Pay population has become a major payer for most health systems
- With nearly everyone having an out of pocket portion, it has become very difficult to sort out charity care and ability to pay within the self pay population
- The strategies regarding self pay population are differentiated between those who have out-of-pocket cost after insurance and those who have no insurance
- The proliferation of public and commercially available datasets (i.e. “big data”) has opened up many opportunities to sort out the self pay population and apply the most efficient and effective process to achieve the desired results
- EMR systems:
  - Are not efficiently and effectively designed for self pay collections beyond simple statements and payment plans
  - Do not have the information to sort out those able to pay and those who will actually pay (propensity to pay)
- Healthcare organizations must be diligent in designing strategies and approaches that leverage this data intelligence that fit their patient population

Contact Us

David C. Salsberry  
Executive Vice President & CFO  
JPS Health Network  
David.Salsberry@JPSHealth.org  
817.927.1611

Joe Poppler  
Director Solutions-Research & Development  
NCS  
jpogpler@ncsry.com  
800.582.7066
Questions?

Thank you