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Identify the Problem

Using Data to Transform Our Intentions

Some is not a number. Soon is not a time.

—Dr. Donald Berwick

In 2004 Dr. Berwick, CEO of the Institute for Healthcare Improvement (IHI), addressed a crowd of doctors and health care workers at a conference. He declared from the podium that his methods—if implemented—could save 100,000 lives over the course of 18 months (Heath & Heath, 2010). His mission was hospital and health care reform. From his work in and around the medical community for over 40 years, he knew that medical care errors in hospitals led to needless deaths every year. The data were evident and people in the profession knew the need was real. But how do you get doctors and health care workers to admit and identify mistakes in hospital care? They are already doing the best they can. Sometimes the only thing needed is a challenge, a push, and a system of support to help people improve—that was where Dr. Berwick came in.

Dr. Berwick didn't stop at problem identification. He confronted the issue of hospital care reform by proposing a challenge. During his address at the conference, he told the crowd of doctors and hospital administrators that his organization over the course of several years had identified and developed health care strategies that improved the effectiveness and efficiency of hospital care. In other words, implementing systems his staff designed would save lives

and drive down costs. Offering consulting services to hospitals free of charge, he estimated 100,000 lives could be saved across the country within 18 months if the strategies were implemented.

Spurred on by a mother's story of a medical error that cost the life of her daughter, the doctors and hospital administrators in the crowd that day were moved to action by the Berwick challenge, and several hospitals joined the 100,000 lives campaign immediately. They welcomed outside support to improve their systems. In the end 3,103 hospitals participated in the campaign, and an estimated 122,342 lives were saved. The estimated number had an accuracy range of plus/minus 2,074 and was determined upon data analysis completed by three independent groups. Most of these lives were saved through simple techniques and practices in health care that Dr. Berwick's team implemented through training in each hospital that participated (The Governance Institute, 2006).

In April of 2010, Dr. Berwick was nominated by President Obama to be the administrator of the Centers for Medicare & Medicaid Services. Needless to say, his ability to identify problems and implement solution strategies delivered results in the field of health care, and he was recognized and rewarded for his efforts. It is not difficult to see the connection between Dr. Berwick's passion for patients and the work being done with data teams in schools. He began by identifying the problem and proceeded by implementing solutions based upon data.

■ TOOL 2: IDENTIFY THE PROBLEM

This tool is best used as an initial way for staff to identify their perception of what is occurring with a troublesome area. Using this tool is a great first step to identifying a problem a data team, individual, or school is trying to solve. Though identification is an important first step, it is also critical for staff to express how they feel about the problem. Connecting emotions to problems makes the data personal, and data that are personal have a greater chance of being addressed because feelings become attached to the numbers. In school as well as in life, it is often not a lack of knowledge or skill that prevents people from solving their problems; it is a lack of motivation and the will to do it. Many reform efforts are sound in theory but fail during the process of implementation.

Other reflection questions that need to be asked when using this tool are related to having staff think about the data that address the problem they're facing and the need to identify what those data are telling them. The final question addressed by this tool is a simple one that asks what they will do about it. Though this tool does not determine a course of action, the reflective nature of it gets team members talking about what to do next, and those courageous conversations yield seeds of change for powerful solution strategies.

Identify the Problem is a reflection tool (see Tool 2 on page 124 for a blank version to photocopy). Reflection is a great first step in helping staff to think about a problem they are facing, review data they have that address their problem,

and ponder an action they can take to address it. This tool is helpful to generate the action steps and energy to address complex problems that do not have clear solutions or clean data. It can be completed individually, by teacher teams, or by an entire staff. Still another option is to have individuals complete the tool and compare their responses with others. This approach results in lively conversation.

Using Data to Unpack the Problem of Mobility

Lebanon, Oregon, is a semirural community in transition. Built upon the logging industry of the previous century, Lebanon is a town of 15,000 people situated on the western side of the beautiful Willamette Valley—the grass seed capital of the world. The rural landscape surrounding Lebanon consists of several thousand more people who send their children to one of Lebanon's eight public schools. Though the town's future is moving toward education and medicine with the arrival of a new medical school in the fall of 2011, the past was built upon blue-collar jobs that didn't require more than a high school diploma to obtain and provide work for a lifetime. Those days are gone for the most part, and the transition has been difficult for many people and families. As a result, all of the schools post poverty rates of over 50% and at some of the schools over 80% participate in the federal free and reduced lunch program.

The reality of what seemed like the constant movement between the schools caused many leaders in the school system to have serious concerns about student mobility. They questioned what could be done to mitigate mobility effects upon student learning and achievement—especially when the schools had different curricula, standards, and expectations. They started asking questions. The first questions posed were exactly how many students were entering the district, leaving the district, or moving around the district throughout the year? Records were analyzed, and the district began tracking the movement of every student on a massive spreadsheet. Throughout the course of the 2009–2010 school year, it was discovered that 648 students left the district, 625 students entered the district, and 748 moved around the district. If the same student moved more than once, each movement was counted. When the dust settled at the end of the year, 2,021 students had moved in, out, and around the schools—which represented a mobility rate of over 50%.

Poverty and mobility rates are linked hand-in-hand across the country. The more depressed a community, the higher the school mobility rates are. Anyone who works in schools knows that each movement disrupts the learning and relationship building process. Since each of the schools had different report cards and standards on which the reports were based, getting those report cards aligned became priority work for the school year. This problem was identified simply because leaders looked at the data around mobility and decided to do something about it. The district then implemented common formative assessments throughout the year to measure the universal standards. This action alone helped students transitioning in and out of schools throughout the year.

Reflecting on the mobility problem in Lebanon using Identify the Problem would look like Figure 2.1.

Figure 2.1   Identify the Problem (Example): Student Mobility in Lebanon

1. What problem are you facing?
The student population (4,000 students) is highly mobile (especially at our highest poverty schools). The mobility creates learning and relationship gaps for our students as they move in and out of schools.
2. How do you feel about it?
The student movement is frustrating for staff as they lose relationships with students and parents frequently throughout the school year, and it seems to have an academic impact upon student achievement and learning.
3. What data do you have about your problem?
We know that over 50% of our population is mobile. One third is moving in, one third is moving out, and another third is moving around the district.
4. What is your data telling you?
It is telling us that mobility impacts student learning and achievement. Our schools with the highest mobility are also historically the lowest achieving.
5. What will you do about it?
We need to develop a common report card across all of our schools, adopt a common curriculum, develop common formative assessments, and communicate horizontally across the district to make sure key content standards are being addressed in similar time frames.

Vertical Alignment and Mobility

After analyzing horizontal mobility among schools, district and school personnel started thinking about vertical mobility. They wanted to know the effect on grades and attendance of students who had experienced movement from school to school over the course of their career. They analyzed every high school transcript and individually asked students at the high school how many schools he or she attended throughout his or her career. The range went from two schools (since there are three K–8 schools in the district) to 12 schools. It was discovered there was not a discernible effect in grades or attendance among the students who attended two to four schools throughout their careers, but when a student was in five schools, and especially when they hit six schools or more, achievement and success (in terms of classes passed, grade point average [GPA], and attendance) plummeted. The data revealed something else as well.

The district had a tradition of awarding high school credit in eighth grade for students who were advanced and completed a course of study that included ninth-grade curriculum. In theory, this practice sounds like a great opportunity. In reality, the transcript study revealed several unintended consequences. For starters, many students who were awarded credit for core classes in middle school stopped taking those core classes later in high school once they achieved

the minimum credits they needed to graduate. They were not thinking long-term and preparing for college or career. They were thinking short-term and looking for the easiest route out of high school. As a result, when they became seniors and thought college might be in their future, they scored extremely poorly on the SAT, ACT, and other college placement exams. Many of them would have scored higher in the ninth or tenth grade as opposed to the twelfth. They literally lost options for their future because they stopped taking challenging coursework in core areas after they reached the minimum requirement.

Another unintended consequence of this policy was the lowering of high school GPAs. More than any other number assigned to students in high school, the GPA sticks. Reflecting on this data revealed that the majority of students had higher GPAs *without* the credits earned in eighth grade. Several students lost the opportunity to be valedictorian in high school or graduate with honors because of credits and grades earned in eighth grade. Student responsibility and maturity plays a significant role, in addition to skills and intelligence, when it comes to earning grades. These unintended consequences were discovered only through asking questions about the data and reflecting on the answers.

Digging into data with questions, in order to identify the problem you are trying to solve, helps data teams avoid unintended consequences. Once problems are discovered, practices can be improved and policies changed. As a result of this data analysis, it is now rare in Lebanon Community Schools to offer high school credit in middle school. Instead, extensive advanced coursework within the curriculum grade span is offered so that student thinking and skills are constantly challenged, and opportunities for every student to grow and thrive are enhanced.

Using Identify the Problem in a Classroom

A third-grade teacher used Identify the Problem to help her think through how to serve a group of students in her classroom who were reading one and one-half years behind grade level. By asking herself the five reflective questions, she was able to identify some actions to take to help these students catch up to their grade level. Her reflections are captured in Figure 2.2.

Figure 2.2   Identify the Problem (Example): A Group of Students Not Making Progress in a Third-Grade Classroom

1. What problem are you facing?
The problem I am working on is a group of students in my class who are reading one to two years behind grade level, and only one of them is on an IEP.
2. How do you feel about it?
I feel strongly that these students need to make good progress this school year. As the school year progresses, I am beginning to feel more and more stress and concern because they are not making the progress I would like to see.

(Continued)

Figure 2.2 (Continued)

3. What data do you have about your problem?

I have STAR reading assessment (a reading assessment system by Renaissance Learning) score data, tested about every six weeks, beginning in September. I have Easy Curriculum Based Measures (CBM) data, and I have state test results.

4. What are your data telling you?

The data are telling me that the students are far behind grade level in reading and have not been making adequate progress to catch up to their grade level this year.

5. What will you do about it?

First, I think I will develop a questionnaire for the students to get their ideas about reading—what they like about reading, what they don't like, what is difficult, the best part of reading, and how much they read at home—to see if they have any ideas about how they can make their own reading better. I think I will sit down with each student and ask these questions so I can get more honest feedback. Next I will look at the reading instruction they are getting—how many minutes of the core, what kind of interventions, what seems to be working, and what can be done better.

Data Reflection Helps Budget Woes

How to do more with less resources is a problem nearly every public school and district in America is currently facing. Using the Identify the Problem tool was extremely valuable in helping an Oregon district with recent budget difficulties. The last decade in public education has seen the rise and fall of several budget cycles. In many places around the country there has been a lot more falling than rising. Falling behind only Michigan as the state with the worst unemployment rate during the recession that began in December of 2007, public school funding in Oregon has not done well in the last decade. In the midst of constantly rising employee costs and the costs of goods and services, Oregon's funding per student has declined over the last four years and is now less than $6,000 per student—one of the worst rates in the country. Schools are operating on less funding in 2010 than they were five years ago.

In May of 2010, Governor Kulongoski announced another across-the-board cut to education funding throughout the state due to lower than expected personal tax revenues from 2009 returns. School districts found themselves with a 5% budget cut that day, and that cut was followed by another 3% in August. An 8% cut does not sound like a lot, but when 75 to 85% of your budget is personnel, it feels more like 25%. The timing of the announcement couldn't have been worse. Most districts already negotiated contracts for the year and built their budgets. How would leadership respond to a crisis of this nature? The problem seemed simple enough. The budget was cut. The budget is mostly people. Time to start cutting people. One district resisted that temptation and instead began by identifying the problem they were facing. Problems of this nature are not unique to Oregon. A majority of states and districts across the country are experiencing budget shortfalls of one kind or another.

Because of a sense of urgency, the tendency in difficult, stressful situations is to try to solve problems with drastic measures before taking the time to study

and understand them. Taking time as a team to identify problems with a few simple questions keeps staff from making knee-jerk, rash decisions that often result in more unintended consequences than the original problem they were trying to solve.

District leaders didn't want to think short-term at the local level—especially with budgets. They knew that no matter what the situation, great organizations try to think long term. Gathering together key administrative leaders in the district, they went through the Identify the Problem activity. By taking a few moments to write responses to the questions, the administrators were able to calmly share the data they had, how they felt about it, and what steps they felt should come next. Some of them realized that they didn't have nearly the data they needed so they couldn't even make a reasonable decision. Being able to stop and gather more data to afford a comprehensive review almost always leads to better decisions in the long run, and through the process, the problem is clarified so that it can be addressed effectively.

A Happy Ending to Budget Woes

Using Identify the Problem, the leadership team was able to come to a sensible decision that honored all stakeholders, treated staff with dignity and respect, and kept the best interests of the children and community at heart. Instead of responding to the governor's message with a knee-jerk layoff response, leaders realized that late spring was not the best time to make smart, long-term staffing decisions—especially when there were so many factors that influenced the budget still at stake, including enrollment, additional revenue forecasts, and future legislative action. Instead, the leadership team decided upon some quick across-the-board budget reductions in nonpersonnel budgets, came up with some creative ideas to reduce substitute costs, and strategically lowered the overall salary budget by 3%. The 3% reduction didn't have to be made up with immediate layoffs, but joint conversations enabled all stakeholders to work together to achieve the reduction collaboratively. Instead of dividing stakeholders, the problem brought people together in a proactive way.

> ### IN THE FIELD: IDENTIFY THE PROBLEM
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> Figure 2.3 is a sample from a group of teachers who were in the midst of a climate problem at their school. Staff was starting to become polarized. Arguments, mistrust, a general lack of communication, and backbiting were on the rise. As a result, the school was becoming unhealthy and many staff members dreaded coming to work. Students were beginning to feel the stress of the situation as well and negative student behavior—especially bullying and harassment—was on the rise. The Identify Your Problem tool helped this team of teachers define what was really bothering them and come up with a course of action. By thinking through their problem, they were able to move past what was bothering them and become galvanized for action. When a team does not know what to do first, Identify Your Problem is a great tool to get team members talking, sharing, asking questions, looking at the right data, and moving in a positive direction.

Figure 2.3   Identify the Problem: Climate Concerns (Teacher Team example)

1. What problem are you facing?

The climate at the school is not positive. Seems like there are divisions developing among staff members. People are angry at each other and do not enjoy coming to work. Students seem to be acting out more.

2. How do you feel about it?

Upset and helpless. The school used to have a great climate, but it has changed in the last few years and gotten worse recently. We do not know what to do to fix it.

3. What data do you have about your problem?

Observations and conversations with staff. Survey perception data from staff, students, and parents. Data on student behavior—especially harassment—seem to be on the increase.

4. What are your data telling you?

Our perception is that the data are old. We only have a hunch (there is little evidence) that the increase in negative student behavior is connected to the climate issues among staff.

5. What will you do about it?

Meet with school and district administration to express our concerns. It might be helpful to conduct focus groups with staff to see if we can understand the root of the climate issue, and how extensive the problem is. Our schoolwide behavior team will need to review the student behavior referrals to see how the behavior can be addressed and if there is any connection to the climate issues. We need additional time to explore the problem further with leadership and come up with some positive action steps for improvement.

■ PUTTING IT ALL TOGETHER

Complex problems are not solved easily. Whether we are trying to figure out why Johnny isn't making progress in his third reading intervention, balancing shrinking budgets while increasing student achievement outcomes, determining how to address mobility, or strategizing how to reform public education, identifying the problem the team or individual is trying to solve is a critical first step in determining viable solutions that make sense and work in the long-term. All too often, we reach for a hammer when what we really need is a voltage meter. Unfortunately, when the only tool we have is a hammer, everything looks like a nail. Using a tool to identify the problem on an individual level through reflection and then sharing those perceptions with others in a team setting facilitates rich dialogue and through that dialogue, an array of sensible courses of action emerges.

When Dr. Berwick faced that crowd of doctors and hospital administrators with his challenge of saving 100,000 lives within 18 months, he put a number to the problem and identified a time to get it done. Being specific with data takes away all room for excuses and galvanizes people to a course of action. At the end of the day, everyone can measure progress, determine success, and set new

goals, but it all starts with identifying the problem. Before a team can set aggressive goals that will take the organization in the right direction, it is necessary to identify the problem they are trying to solve. Dr. Donald Berwick was focused on saving lives through better health care. When schools are made better places for staff and students, the quality of life people experience is enhanced, learning soars, and minds flourish.

Lack of knowledge is not the biggest obstacle to improvement and better outcomes for students. Nor do we lack an understanding of what great systems look like or how to get there. Aside from resources in some contexts, the biggest obstacle is a lack of cooperation among stakeholders. Being able to identify problems together and work toward common solutions is the reform work of this decade that will successfully propel us into the next.