

Purpose-Driven Process Improvement: An Individual-Centric Perspective on Reporting Medical Test Results

By Elizabeth L. Bewley

Defining the Purpose

To fix a broken process, it is critical to be very clear about the purpose of the process. This first step is often omitted. As a result, fixes put in place often don't deliver the expected benefits. One can clarify purpose by asking two critical questions:

- "Who is the intended beneficiary of this process?"
- "What do they want from this process?"

In health care in general, an appropriate answer to the first question is "the people who receive care." Most of them don't want to be patients, however, and view illness and interactions with the health care system as unwelcome disruptions. As a result, an appropriate answer to the second question is "to get back to living their lives."

Thus, perhaps the purpose of health care should be "to enable people to lead the lives they want." This idea contrasts with traditional ones such as "to diagnose and treat disease," or even "to improve population health."

What difference does clarifying the purpose make? Consider as an example the reporting of medical test results to individuals. To set the stage, below are some observations about what medical test reporting looks like today from the perspective of the individual (the patient).

Waiting for Test Results

People typically cannot get their test results as soon as they are available; they must wait until the doctor contacts them. Why? Doctors argue that patients wouldn't know how to interpret them and may become upset and confused.¹ That is a questionable assertion, for two reasons.

First, most tests are done to "rule out" problems. For example, roughly a hundred women get mammograms for every one diagnosed with cancer.² As a result, ninety-nine women out of a hundred would be relieved, not upset or confused, when they got their results.³ Second, uncertainty itself is harmful to people. Research shows that people "feel worse when something bad might occur than when something bad will occur... human beings find uncertainty more painful than the things they're uncertain about... we can't come to terms with circumstances whose terms we don't know yet."⁴

A woman described her experience of waiting for cancer test results her doctor had promised to give her in the two days before he left on an extended vacation: "Racing pulse, dry mouth, total self-preoccupation with what-ifs to the point that real life doesn't exist, willing the phone to ring..." She didn't hear from him on the first day, and left messages begging him to call her before he left town. The second day, she waited, "jumping at every noise, not letting anyone use the phone, imagining every scenario." Her doctor never called.⁵

Test Results' Black Hole

Researchers found that doctors themselves say that they report normal test results to patients only 14% - 37% of the time, and abnormal test results 55% to 71% of the time.⁶ In addition, "1% to 10% of clinically important abnormal test results are missed by providers, with potential adverse consequences for patients' health."⁷ Another study concluded that doctors fail to report such results to patients on average 7% of the time, and in some doctors' practices, as much as 26% of the time.⁸

Consequences of Waiting

An article about women being tested for breast cancer was headlined, "Study Equates Stress of Cancer and of Wait for Biopsy Results."⁹ Fifty-eight percent of the women were still waiting for test results after five days. They had blood levels of a stress hormone, cortisol, identical to those of women who had learned that they had cancer.

The article continues, "...cortisol levels can influence wound healing and immune response, raising a woman's potential health risks... And the stress and anxiety of waiting also affects... her family and her... work."¹⁰ Other research shows, "Psychological stress can take a physical toll on many body systems," resulting in problems such as increased blood pressure, weakened immune system, and increased sensitivity to pain.¹¹

Since waiting for test results causes high stress levels, and high stress levels damage health, the most effective way to have test results enhance rather than damage people's health is to provide them as quickly as possible. That generally means not making people wait for the doctor to call them. Results typically could be provided more quickly by other staff members.

Patient-Centered Test Reporting

It is the rare medical practice that has acted on this knowledge. An example of one that has is New Pueblo Medicine in Tucson, AZ. This 12,500-patient practice is recognized by NCQA as a patient-centered medical home.¹²

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When asked, "What percent of test results are reported to patients?" CEO Mike Cracovaner and Chief Operating Officer Kim Haspert seemed surprised by the question: New Pueblo Medicine has processes in place to ensure that it receives and reports 100% of test results to patients. For tests done at their on-site lab, results are often provided in minutes. Otherwise, normal results are reported to patients in phone calls from the physicians' medical assistants or by postcard, so people do not have to wait for a doctor's call.¹³

Fixes

If one wanted to fix the reporting of test results, the solution would be heavily influenced by what one believes the purpose of the process is.

Doctors say that reporting normal test results to individuals takes up too much of their time. However, they do want to tell people personally about abnormal results.¹⁴ Individuals say they want to receive all test results, and they care most about receiving as quickly as possible any abnormal results so that they can start dealing with the problem.¹⁵

If the purpose of the process improvement is defined as, "to save doctors' time in reporting test results when no further medical action is needed," then the solution might be a process that reports normal results to patients immediately, and traps abnormal results and sends them to the doctor's desk.

But suppose instead that the purpose is defined as, "to minimize stress for patients and ensure that they learn about abnormal results." Then the solution might be a process that does not depend on the doctor but reports all test results to patients immediately, and highlights seriously abnormal ones together with next steps (e.g., "Make an appointment to discuss these results with your doctor.")

Incidentally, this second solution would also solve the doctors' time problem. To address the issue of individuals who procrastinate, staff could call patients who had serious abnormal results if they did not make an appointment promptly. The two solutions differ in significant ways. The critical differences stem from how one defines the purpose of improving the delivery of test results to individuals.

The Purpose of Health Care

The second purpose above, "to minimize stress for patients and ensure that they learn about abnormal results," could be considered simply a more detailed, specific version of the purpose of health care suggested above, "to enable people to lead the lives they want." When addressing a wide variety of health care delivery issues, starting with that purpose is likely to suggest new solutions with the potential to improve both health outcomes and costs.

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References:

¹ Sharon Sung, "Direct Reporting of Laboratory Test Results to Patients by Mail to Enhance Patient Safety," *Journal of General Internal Medicine*, 21:10, October 2006.

² Michael Blastland and Andrew Dilnot, "When Numbers Deceive," *Week*, 27 February 2009. This article notes that 8 women out of every 1000 tested have breast cancer. This statistic is rounded above to 1 in 100.

³ The picture is a little more complicated than this due to false positives, but that doesn't change the main point. See Michael Blastland and Andrew Dilnot, "When Numbers Deceive," *Week*, 27 February 2009.

⁴ Daniel Gilbert, "What You Don't Know Makes You Nervous," *New York Times*, 20 May 2009.

⁵ Gina Kolata, "Sick and Scared, and Waiting, Waiting, Waiting," *New York Times*, 20 August 2005.

⁶ Sharon Sung, "Direct Reporting of Laboratory Test Results to Patients by Mail to Enhance Patient Safety," *Journal of General Internal Medicine*, 21:10, October 2006.

⁷ Ibid.

⁸ Lawrence P. Casalino, Daniel Dunham, Marshall H. Chin, et al, "Frequency of Failure to Inform Patients of Clinically Significant Outpatient Test Results," *Archives of Internal Medicine*, 169:12, 22 June 2009.

⁹ Tara Parker-Pope, "Study Equates Stress of Cancer and of Wait for Biopsy Data," *New York Times*, 25 February 2009.

¹⁰ Ibid.

¹¹ Melinda Beck, "Stress So Bad It Hurts – Really," *Wall Street Journal*, 17 March 2009.

¹² See the NCQA (National Committee for Quality Assurance) website at <http://www.ncqa.org/>.

¹³ Telephone interview with Mike Cracovaner, CEO, and Kim Haspert, Office Manager, New Pueblo Medicine, 20 July 2009.

¹⁴ Sharon Sung, "Direct Reporting of Laboratory Test Results to Patients by Mail to Enhance Patient Safety," *Journal of General Internal Medicine*, October 2006. v21 (10):1075-1078.

¹⁵ Ibid.