

# A system's approach to improve organ donation

Using lessons learned from the US Department of Health and Human Services National Donation Breakthrough Collaborative, New York-Presbyterian Healthcare System (NYPHS) partnered with 5 donor service areas covering its member hospitals to improve donation across the system. By integrating established communication networks with the "spread" techniques of the Breakthrough Collaborative, the NYPHS identified hospital champions and best practices and established standardized outcome metrics. The improvements that resulted were a sustained increase of 40.23% in consent rate and an initial 41.7% increase in conversion rate during the first 6 months, although that conversion rate was not sustainable. During the 8 measured periods, 21 hospitals met or exceeded the 75% conversion rate during 1 or more quarters. NYPHS was able to spread these successes and outcome metrics through its established communication networks of quarterly report cards, regular senior leader meetings, and real-time access to a secure member-only Web site, thus keeping organ and tissue donation at the forefront of hospital leaders' priorities. (*Progress in Transplantation*. 2009;19:216-220)

**Judy M. Graham, RN, MS, CS, CPHQ, Maria E. Sabeta, BA, Joseph T. Cooke, MD, Elaine R. Berg, MPA, Wayne M. Osten, MPA**

New York-Presbyterian Healthcare System (JMG, WMO), New York Organ Donor Network (MES, ERB), New York-Presbyterian Hospital, Weill Cornell Medical College (JTC)

Corresponding author: Judy M. Graham, RN, MS, CS, CPHQ, New York-Presbyterian Healthcare System, 525 East 68th Street, Box 572, New York, NY 10065 (e-mail: jug9017@nyp.org)

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Approximately 6000 patients per year die while waiting for an organ transplant. Strategies to address this shortage of organs were much debated until the US Department of Health and Human Services launched the Organ Donation Breakthrough Collaborative in 2003.<sup>1,2</sup> This national collaborative demonstrated that change was possible by bringing together key hospital leaders and staff from organ procurement organizations. Hospitals participating in this collaborative increased the number of organ donors by 14.1% in the first year, an increase of 70% over the change seen at hospitals that were not part of the Collaborative. Between October 2003 and September 2006, the total number of organ donors increased 22.5%, a 4-fold greater increase than the 5.5% increase measured over the same number of years in the period immediately preceding the Collaborative.<sup>2</sup> By following standardized, proven best practices and having all partners in a donor service area (DSA) working in collaboration, significantly more patients could receive their much-needed organ transplant.

## Problem

In 2006, the organ donation rate in the greater New York tristate area was well below the national average, ranking 50th among 59 DSAs, and had been relatively flat since 2003. At that time, only a few hospitals participated in the national collaborative and contributed to its dramatic increase in donation. It was thought that if the New York-Presbyterian Healthcare System (NYPHS), the largest nonsectarian, not-for-profit health-care system in the United States, could use the lessons learned in the national collaborative in all of its 29 acute care hospitals, it could make a similar difference.

NYPHS is a federation of 29 acute care facilities, 4 specialty institutes, and 5 continuing care centers throughout New York, New Jersey, Connecticut, and Texas, with nearly 10 000 inpatient beds and discharges of just more than one-half million patients annually. NYPHS contains 3 multiorgan transplant centers, Columbia and Weill Cornell in New York City and Methodist in Houston, that perform about 800 transplants a year and have more than 3000 patients on their

Table Overarching principles and best practices of successful donation systems of organ procurement organizations (OPOs) and hospitals<sup>a</sup>

#### Overarching principles

1. Integrate organ donation fully into routine roles and responsibilities.
2. Set high standards for donation performance to reduce the unacceptable shortage of lifesaving organs.
3. Involve OPO and hospital staff in ongoing standards setting and redesign of means to achieve these standards.
4. Hold OPOs, hospitals, and their staff accountable for achieving these standards and recognize the staff accordingly.
5. Establish, maintain, and revitalize a network of interpersonal relationships and trust involving OPO and hospital staff, donor families, and other key agents.
6. Collaborate to meet the range of needs of potential donor families and achieve informed consent to donate.
7. Conduct ongoing data collection and feedback to drive decision making toward performance improvement.

#### Best practices

1. Orient organizational mission and goals toward increasing organ donation.
2. Do not be satisfied with the status quo; innovate and experiment continuously.
3. Strive to recruit and retain highly motivated and skilled staff.
4. Appoint members to OPO board who can help achieve organ donation goals.
5. Specialize roles to maximize performance.
6. Tailor or adapt the organ donation process to complementary strengths of OPO and individual hospitals.
7. Be there: integrate OPO staff into the fabric of high-potential hospitals.
8. Identify and support organ donation champions at various hospital levels; include leaders who are willing to be called upon to overcome barriers to organ donation in real time.
9. All aboard: secure and maintain buy-in at all levels of hospital staff and across departments/functions that affect organ donation.
10. Educate constantly; tailor and accommodate to staff needs, requests, and constraints.
11. Design, implement, and monitor public education and outreach efforts to achieve informed consent and other donation goals.
12. Referral: anticipate, don't hesitate, call early even when in doubt.
13. Draw on respective OPO and hospital strengths to establish an integrated consent process. One size does not fit all, but getting to an informed "yes" is paramount.
14. Use data to drive decision making.
15. Follow up in a timely and systematic manner. Don't let any issues fester.

<sup>a</sup> Based on data from US Department of Health and Human Services.<sup>3</sup>

combined waiting lists. If all the NYPHS hospitals could work collaboratively with the 5 organ procurement organizations (New York Organ Donor Network, New Jersey Organ and Tissue Sharing Network, New England Organ Bank, Center for Donation and Transplantation, and LifeGift Organ Donation Center), data and best practices could be shared and a unified goal could be sought.

#### Objectives

Taking cues from the National Organ Donation Breakthrough Collaborative's overarching principles and best practices (see Table), our Donation Transplant Council spread these principles and practices through existing pathways and relationships within the NYPHS.<sup>3</sup>

#### Goals

The Donation Transplant Council had 5 main goals:

- Increase consent rate (number of consents per number of approaches) by 50% over the 2006 baseline<sup>4,5</sup>
- Exceed the 75% conversion rate (number of potential donors becoming actual donors)
- Obtain 3.53 organs transplanted per donor, a regional benchmark for the northeastern States, where most of the member hospitals are located<sup>5</sup>

- Increase the number of donation after cardiac death (DCD) donors to 10% of all organ donors
- Report 100% of cardiac deaths for tissue donation to the DSA within 3 hours

#### Design

NYPHS has been using a collaborative approach to improve quality of care since its incorporation in 1999. The successes of the National Organ Donation Breakthrough Collaborative were re-created in a microcosm by creating a systemwide council in which key hospital and DSA staffs routinely meet to discuss opportunities to improve donation processes, share data trends, and establish consensus statements to guide practices at member institutions. These lessons learned at the national level are integrated into systemwide goals and daily operations by adding them to already established communication methods.

The Donation Transplant Council first met in April 2007, with 1 representative from each hospital and 1 from the New York Organ Donor Network, the DSA for the majority of NYPHS hospitals. It is co-chaired by a physician and nurse manager. The group meets quarterly to discuss legal and ethical concerns, success stories, and donation statistics and to collaboratively develop key consensus statements to guide donation practices. Donation statistics are pushed to

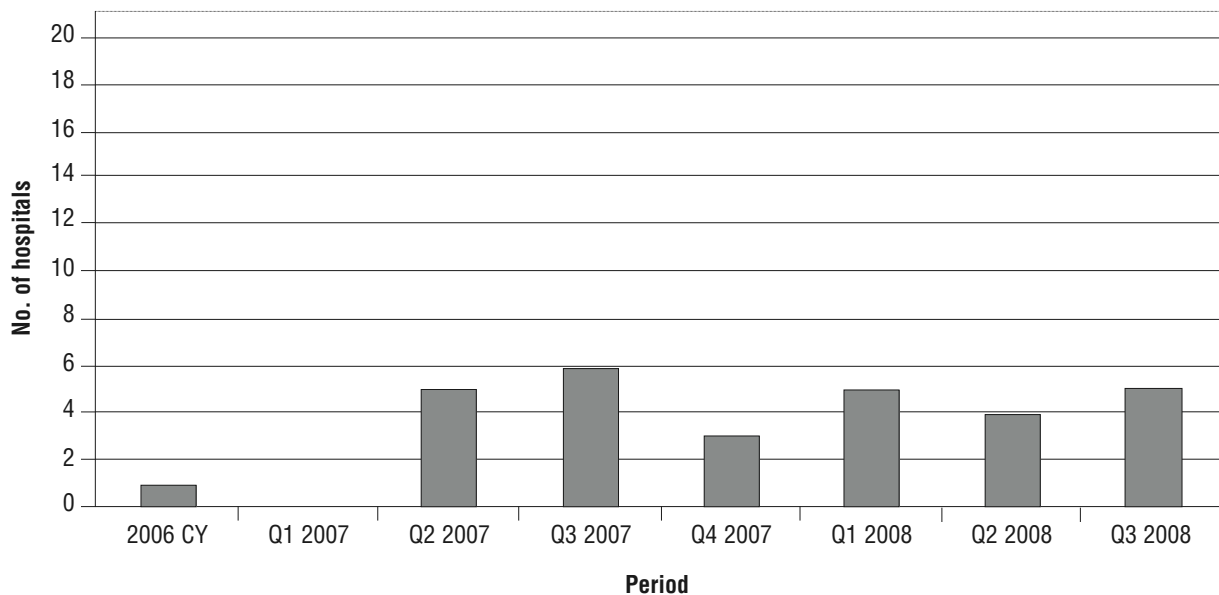


Figure 1 Number of hospitals exceeding a 75% conversion rate during 2006 calendar year (CY) and each quarter (Q) during improvement period.

the leaders at each hospital through bimonthly meetings of chief executive officers, chief medical officers, chief nursing officers, and critical care and performance improvement directors. (Council participants are given access to our data warehouse, Comprehensive Online Quality and Performance Improvement Technology, where the donation statistics are embedded into each hospital's dashboard along side tabs for length of stay, mortality rate, complications, patient satisfaction, core measures, and hospital-acquired infection data.)

The setting for this project was a multistate, not-for-profit, nonsectarian hospital system. Participants included system member hospitals as well as hospitals within the region's DSA.

## Results

Improvements were moderate. Adoption of the 3 consensus statements—the consent process map, guidelines for donor management, and policy on donation after cardiac death—took much longer than expected. The overall system conversion rate improved by 42% during the first 6 months of the improvement phase. Although this rate was not sustained, it is nearly double that initially reported by the Organ Donation Breakthrough Collaborative.<sup>1</sup> Over the longer term, 23% of member hospitals (ie, 29 hospitals) reached or exceeded a 75% conversion rate during the 8 quarterly measure periods (Figure 1). The systemwide consent rate increased by 30% over the baseline year, with an average of 29% of hospitals (ie, 41 hospitals) exceeding a 50% increase during the 8-quarter measurement period (Figure 2). Even though consent and conversion rates showed moderate increases in many

hospitals, the overall number of organs per donor was essentially unchanged from the baseline year (Figure 3). The DCD donation rate was 9.8% of total donors, just short of the 10% goal.

## Lessons Learned

Changing the culture of donation within a hospital system is difficult, and sustaining improvement is even more difficult. To keep the momentum going, we used the following strategies. We continued to revisit and reinforce each success and celebrate even the smallest of improvements. It has been important to avoid feelings of discouragement when improvements are not sustained. Instead we decided to monitor several related processes to differentiate change among those processes. For example, an improvement in one should also be reflected across the others when the improvement is a result of real change and not just random variation or measurement “noise” (Figure 4).

## Conclusions

Using a planned systematic approach across many hospitals can make a difference in organ and tissue donation. Integration of donation goals and sharing of trended data among hospitals within 1 system facilitate peer competition to improve. The collaboration between the DSAs and system leaders can recreate the successes of the National Organ Donation Collaborative by spreading positive donation experiences and standardization of processes among hospitals. Organ and tissue donation is kept at the forefront of hospital leaders' priorities via established communication networks, report cards, and a secure members-only Web site.

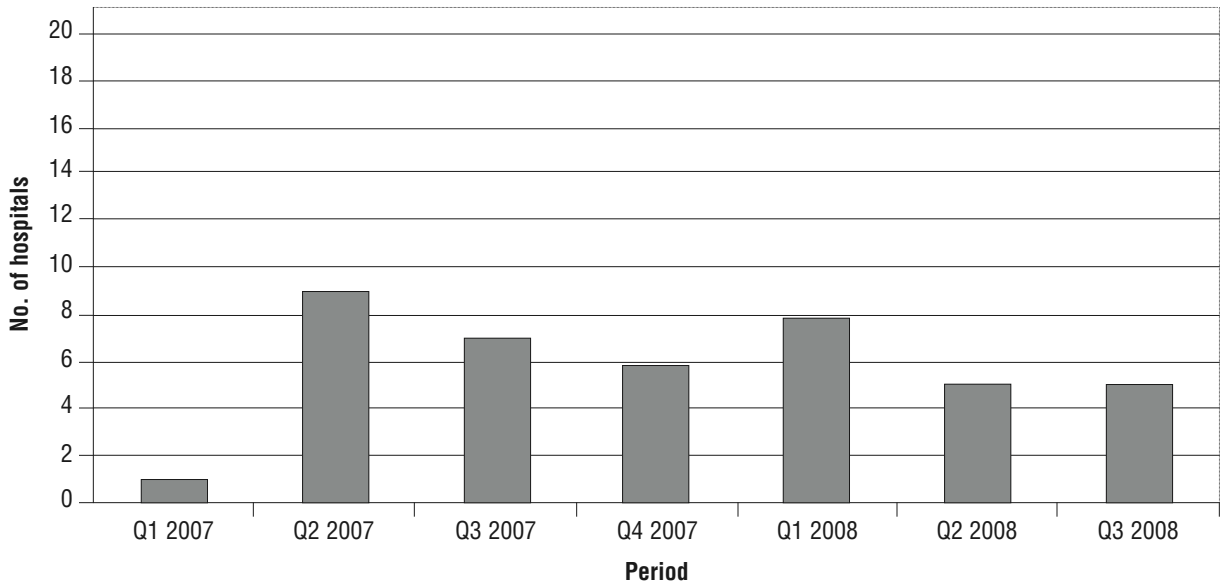


Figure 2 Number of hospitals increasing consent rate by 50% over baseline (calendar year 2006), by quarter (Q).

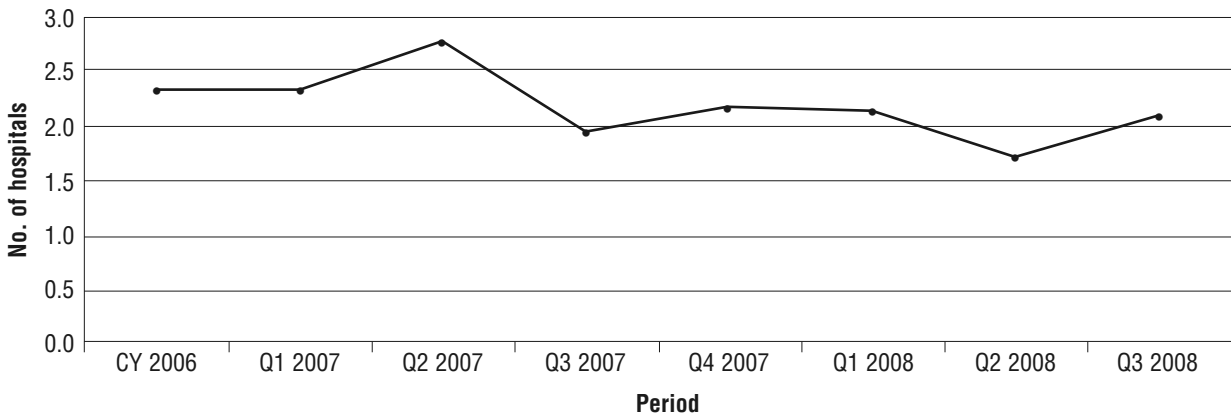


Figure 3 Number of organs transplanted per donor during 2006 calendar year (CY) and each quarter (Q) during improvement period.

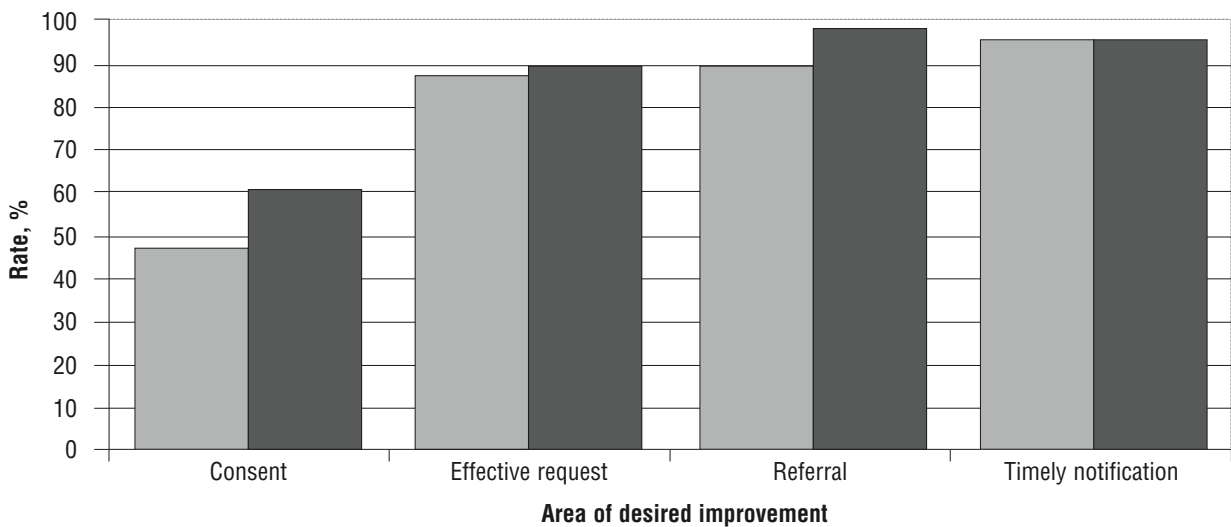


Figure 4 Trends in system improvement from baseline calendar year 2006 (light bars) to after improvement phase (dark bars).

### Financial Disclosures

None reported.

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