

Fail Often To Succeed Sooner: Adventures in Innovation

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A new mom lies in bed in the Postpartum unit as a Kaiser Permanente (KP) Certified Nursing Assistant (CNA) wheels in a TV/video cart so mom can watch an educational video about circumcision before her baby's procedure. Just when the CNA plugs in the video, another staff member enters to complete the baby's hearing screening. The CNA abruptly turns off the video and wheels the cart out of the room. The screener asks, "Has your baby been fed in the past hour? We want him restful and quiet for the hearing screen." "No," the mother replies, "I didn't know that you were coming." "I'm sorry," the screener says, "that means I can't perform the test now. I'll have to come back." She then leaves the room. The new mom missed the educational video and the baby missed his hearing screening; two clinicians wasted their time; and care and teaching for both mother and baby were delayed. Both caregivers will have to return unsure if the situation will repeat itself.

This is one of many stories captured from across KP's hospitals in the past two years of innovation projects using the methodology from a design firm called IDEO. Hospital staff generated many innovative ideas to address like situations using IDEO methodology. Based on the hospital staff's ideas, a board and bedside guide was developed to help show a new mom her "Journey Home." Surveys show that moms, family, and staff love it. It was also a real journey to create a final product, and it was done using IDEO's Innovation Methodology. To better understand it and the steps leading up to the Journey Home tools, let's start at the beginning ...

Consider this. When refrigerators were invented, the people who delivered ice thought that they could compete if they just offered more services, lowered prices, and became more efficient. Not a single company that delivered ice went into the refrigeration business, and ice delivery services no longer exist. Wrigley's chewing gum



Fuzzy slippers offer a sense of home in the hospital.

used to be the largest-selling gum in the nation. The company only made spearmint flavor. By the time Wrigley realized that new flavors were necessary to compete, they had lost their market lead and have never regained it. At one time, Swiss watches were the most common and highly prized watches in the world. The Swiss resisted the innovation of inexpensive, battery-powered watches because they thought that the market for the delicate, jeweled precision of the Swiss watch would not be affected by innovation. The Swiss lost the majority of their market to less expensive, though equally accurate, watches made throughout the world. It is in the nature of a competitive market to innovate. The question is, Who will innovate first and most effectively? The first innovator achieves much better market advantage than the followers. Do you know the name of the second person to fly across the Atlantic?

Baby Steps

In 2001, KP confronted the changing nature of health care. How will health care delivery look in 2015? What

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Marilyn Chow, RN, (right) is Vice President of Patient Care Services in the Program Offices. E-mail: marilyn.p.chow@kp.org.

Table 1. Innovation sponsors^a

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|------------------------------------|
| Marilyn Chow, RN; Program Offices |
| Donna Deckard; Northern California |
| Matt Gerlach; Southern California |
| Jan Head; Hawaii |
| Pam Hudson; Northern California |
| Paul Minardi, MD; SCPMG |
| Phil Madvig, MD; TPMG |
| Maureen Sheahan; CKPU-Coalition |
| Al Weiland, MD; NWP |
| Larry Wilson; Northern California |

^a reflects the sponsors at the time of the perinatal project

technologies will transform the nature of care delivery? What technologies and trends will change the nature of the disease burden in the communities we serve? For insight into how other companies adapt to changing times, several leaders made a site visit to IDEO. It was the first step in a partnership which continues to evolve.

IDEO is a design firm which takes pride in its approach to innovation. Whether innovating the Palm handheld device, a new hospital wayfinding system, or a new user experience for train transportation, the same basic steps are used. IDEO began to work with health care clients in the late 1990's and began a formal engagement with KP in August 2003.

Leaders of the initiative between IDEO and KP selected Perinatal services as the focus area. The reasons for this choice were threefold; Perinatal services involved both inpatient and outpatient components, the Picker scores that measure patient satisfaction showed room to improve our services, and studies show that pregnancy and delivery of a child is a key experience for the main health care decision maker in the family, the woman.

With that, the project scope and approach began to form and while focused and contained, a fairly large support infrastructure was developed to move forward and to review its broader applicability within KP. An Innovation Sponsor's group guided the project and removed obstacles. The group consisted primarily of Regional Presidents and Medical Directors, and was cochaired by Marilyn Chow, RN, and Donna Deckard (Table 1).

A team of KP project managers and consultants conducted the project and was charged to learn and internalize IDEO's Innovation Methodology for use on future projects. The Perinatal Innovation Project, an "LMP Project," included a representative from the KP Coalition of Unions on the "Core Team" (Table 2).

Woodland Hills and Baldwin Park Hospitals in Southern California and Moanalua Hospital in Hawaii were selected to participate, using a "weighted point system"

comprised of key factors such as partnership readiness, management support, and willingness to innovate.

Try, Try Again—The Methodology

The IDEO Innovation Methodology was the foundation for the innovation pilots and for the vast majority of project prototypes. The concept of "failing often in order to succeed sooner" permeates the methodology. Trying a "half-baked" idea with users refines the idea to something truly usable. The point is to try many things on a small scale and to focus energy on the few ideas gaining momentum that have potential to make an impact. This innovation process encourages open and free expression and gives "permission" to try wild and new ideas.

Research

Research through field observations and activities is the first step. IDEO places such a focus on this activity that they have a whole deck of "Method Cards," which show different approaches that range from shadowing and camera journals to "extreme" user interviews, mock customer experiences, and analogous site visits to companies in different industries with a similar core purpose. If you wonder how the needs of a postpartum woman and a shopper at Target are similar, one hour of observations in both environments produces a long list of similarities. We know because we have done it.

The research and observations yield images of patients receiving care, challenge team members to view issues and potential solutions in new ways, generate quotes and drawings from patients sharing their experiences in receiving care, and bring staff and physician stories to life by showing how they work within a complex system. An important result of these observations is identification of the work-arounds caused by the complexity of processes and physical spaces.

This type of research relies much less on publications and statistics and emphasizes human factors and behavior. The core team learned the value in "spatializing information" to process what they learned. Displaying stories, drawings and photographs along a wall

Table 2. Project coordinators "Core Team"^a

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|--|
| Christi Zuber, RN, MHA; Hospital Health Plan Operations |
| Maureen Sheahan/Cindy Newborn; KP Coalition of Unions |
| Adrienne Smith; Organizational Development |
| Chris McCarthy; KP HealthConnect |
| James Heckman; Organizational Development |
| Victor Alterescu/Carin Ramsey; Hospital Health Plan Operations (part time) |

^a reflects the KP project coordinators at the time of the perinatal project

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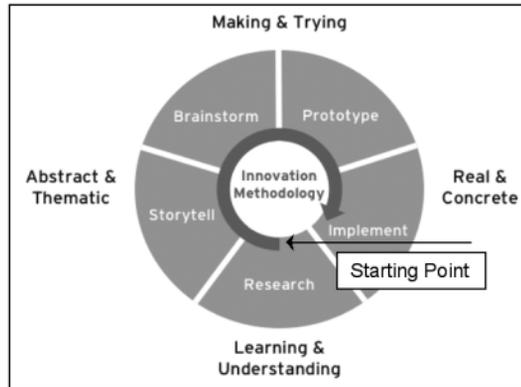


Figure 1. The primary steps of the IDEO Innovation Methodology.

around the team work space helped teams quickly surface themes and issues. Clustering themes crystallizes the big “ah-ha’s” that are built into a simple framework to summarize and communicate the experiences in the next step.

Storytelling

Storytelling is a great activity to engage diverse audiences in the work at hand. The key themes found during the research become more powerfully communicated through representative stories and visual images like photographs, drawings, and videos. The story about the frustrated new mom in Postpartum, for example, graphically illustrated a broader theme of uncoordinated discharge activities. Storytelling and visual images remove people from their view of the world and how they assume it is working. For example, when a staff nurse hears about the tricky details in solving complex patient/bed placement issues, s/he better understands the House Supervisor’s challenges to place the right patient in the right bed. Through this understanding, s/he may be more willing to identify a solution to prototype. A photograph or a drawing accompanies

most stories to further illustrate the story (Figure 2). The goal is for the person doing the observations and the listener/viewer to communicate with creativity, emotion, insight, and understanding.



Figure 2. A patient draws his thoughts on shift change.

Brainstorming

Using the question “How might we ...,” the next step is to brainstorm prototype solutions. This type of open questioning is supported in labor partnership training related to solving problems with an interest-based approach. In the perinatal example, brainstorm questions were: “How might we better coordinate activities to avoid discharge ‘fire drills?’” and “How might we involve and inform patients of their plan of care?” During this process, engaging a team of people with diverse viewpoints and experiences in brainstorming is essential. This activity must include people in direct patient care if it is expected that the solutions will directly impact them. A good brainstorm group will involve managers, nurses, physicians, CNAs, Unit Assistants, transportation assistants, and others. Ten to 12 people is a good size group for an effective brainstorm. There are very few written rules for the IDEO Innovation Methodology, and a great majority of them are aimed at brainstorming. The rules for brainstorming are:

- **Encourage wild ideas.** They inspire participants to jump to new and more creative solutions.
- **Defer judgment.** Every idea is worthwhile. This is the time for openmindedness.
- **Go for quantity.** The more ideas generated, the more great options from which to select.
- **Build on the ideas of others.** Use statements such as: “I would like to build on that idea ...”

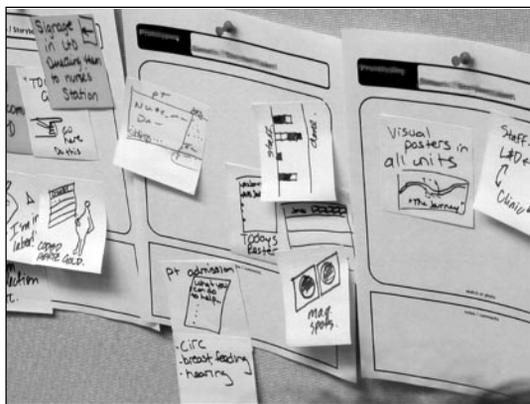
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Group storytelling begins to provide a common vision for participants.

- **Be visual.** Don't get caught up in what to call your idea. Draw or sketch it, no matter what your artistic ability—Stick-people are people too!

The Perinatal Innovation Team at Baldwin Park, for example, brainstormed hundreds of ideas drawn on Post-it Notes® to address the “How might we” questions. Some of them included: a giant map on the wall of a patient’s “journey” through pregnancy to delivery; a book to show occurrences with pull-out trimester tabs; a patient’s computer screen displaying updates in their room of the next step, a wall calendar of discharge activities. They voted for the most interesting ideas that impacted patients and the KP system.



Three primary phases of involvement in ideas: develop, refine/implement, and spread.

Prototyping

Each group dramatized their ideas in skits and prototypes. (See the process used in the Blue Sky Vision series, Perm J 2004-5, 7(4);8(1-2).) One person played the role of a pregnant woman coming into the hospital to deliver; other staff role-played postpartum nurses using a few of the tools they had just created in the brainstorm. They used these new tools to communicate with each other and with the laboring “mom.” For this enactment they built a trifold booklet out of a folder and construction paper to demonstrate pregnancy information by trimester, and drew a large map on poster board to show the mom in the skit what to expect in the hospital. The laboring “mom” was briefed by the oncoming and the offgoing nurse at shift change who enhanced the information through the use of the booklet and the wall map. After the skit was over, participants could clearly envision how the tools and new processes might be used in the hospital setting. The group journeyed from ideas on Post-It Note® into a suite of solutions with some obvious potential.

Additional staff and patients are then asked for feedback and the idea refinement continued. It is important to get feedback from staff and patients early to learn what is working and what needs to be changed. The new staff’s feedback was that the idea was a really good one but that the activities listed in the trimester and map tools were incomplete, and they did not actually occur in a specific order as the “journey map” prototype had shown. The team went back to the drawing board and tried out more ideas including a “To-Do” list, which posted activities in “To-Do” and “Completed” columns. The concept was drawn on a poster board with multiple images and descriptions for each activity placed on cards. It was laminated, Velcro® was added to the cards, and the new prototype boards were placed in patient rooms to try out.

At this point in the process, the prototype is tweaked and tested again, but quantitative measurement does not typically occur yet. Understanding how the prototypes affect the clinicians’ work activities and the patients’ care experience is still the most important focus. How do people actually use or interact with the physical prototype ideas? What people *say* and what they *do* are sometimes very different. For example, after trying out several designs, the group gathered feedback on the new and improved “Journey Home Board” as it became known. Patients stated it was helpful in understanding what to expect next, and they could not suggest any improvements to be made. However, during our observations, we saw family members take the Velcroed®-card images off the poster board and walk them to the mom so she could read them. This helped



A proud display of a prototyped idea—the map of a new moms’ postpartum hospital journey.

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us realize that the patient couldn't read the text from the hospital bed. This prototype was also tried at KP's Moanalua Hospital with the same outcome. A needed change was uncovered through observing patients and family in a way that surveys and questions could not have provided.

On to the next refinement: The staff replaced the text with a brochure, leaving the board as a large visual display of all of the activities. The third hospital, Woodland Hills, joined in the prototyping activities, and together, Baldwin Park, Woodland Hills, and Moanalua Hospitals chose a final design for the Journey Home tools. One full-scale model was made for each of the KP hospitals, surveys were collected, and the team watched patients using the new tools. The response was overwhelmingly positive.

Implementation

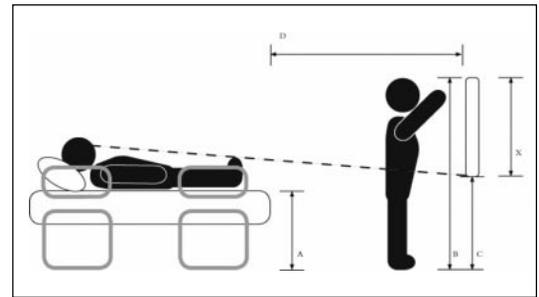
The three original Perinatal Innovation Project sites are now in the process of implementing the Journey Home tools and processes and will measure their impact through the Picker scores. Three additional medical centers are also implementing tools, and the Northern California region has developed a version of the tool for their Service Enhancement work in Maternal Child Health.

A few key learnings of implementation in this include: First, if staff and physicians are involved in partnership with management to generate or refine ideas, they are much more willing to implement not only their ideas, but new ideas that have been developed by others. Once the "innovation bug" is created, sharing and "stealing shamelessly" from others' ideas is not only encouraged, teams find it fun and rewarding. Second, never underestimate the "strength of weak ties,"



The real thing—a set of postpartum Journey Home tools.

a concept that describes spreading an idea beyond its original developers. The KP Riverside (Southern California), Walnut Creek (Northern California) and Sunnyside (Northwest) Medical Centers were each exposed to the work through personal connections between the original medical centers and have joined in the implementation and spread of the ideas.



Implementation—placement of board on wall

What the Participants Think

People involved in the methodology noted several unique process elements for involving people from various levels and disciplines to quickly develop and try out innovative solutions. The participants have shared very valuable feedback about the IDEO Innovation methodology including:

- People feel **empathy** for patients and staff through interactive observation and through sharing experiences by **storytelling**, which unites teams. People who don't work in a patient care unit especially benefit from listening to unit staff and physicians tell their stories.
- Team-members are **all equal** (*rank has no privilege*). Everyone's **wild ideas are encouraged**, and are great points from which to build. Participants feel free to be creative, because they are freed from judgment and rank.
- Team members look forward to **trying out something new, including** other people's ideas. The teams want to know and learn from other people and medical centers.
- Quickly **"getting real" with rapid prototyping** of new processes, tools, spaces and roles moves ideas out into the world and avoids tedious "what-if" planning meetings. One medical center COO stated that it shortened the time it takes to try out ideas on the patient care unit from six months of meetings to several days or even hours.
- For involved staff, the innovative process did not

feel like work and was seen as a **really fun way of getting things done**. Teams most enjoyed brainstorming with drawings, creating and acting out scenarios with props, and the comfort of knowing that the ideas did not need to be perfect to try them out in their workplace.

Since the initial Perinatal Innovation Project, the IDEO Innovation Methodology has been used for a number of other initiatives (Table 3).

Continuing the Cause

There is a very simple definition for innovation: *in-no-va-tion: n. The act of introducing something new.*¹ It is no surprise that growing pains accompany creating anything new. KP has always been an innovative organization; innovation is in its roots. Using the IDEO Innovation Methodology, health care staff and leaders are rewarded with better patient care processes while continuing to develop internal skill sets for sustained innovation. As with any new idea, innovation consultants and facilitators are “prototyping” further support of the innovation teams, as well as the generation, refinement, implementation, and dissemination of ideas. It is not perfect, but we are learning how to do it better with each passing project.

Spreading and sustaining a methodology in a large organization is a significant challenge. Additional people continue to be exposed to the process, including KP HealthConnect Coalition leads, the Care Experience Council, and the Care Management Institute. These people have also experienced brief training in the IDEO Innovation Methodology. The methodology has been used to design advances in shift change, bed management, and patient care experiences. Even facilities are being improved using this approach: A medical office building in the Northwest, and, on a larger scale, KP's new Templated Hospital buildings are examples. Signs of success are visible as our organization is becoming more thoughtful about innovation and about failing often to succeed sooner. We believe that an organization that routinely generates new ideas, shares them with others, and continually implements and supports innovation is not only possible, it may be just a few prototypes away. ❖

Reference

1. The American Heritage dictionary of the English language, 4th ed [Web page on the Internet]. Boston: Houghton Mifflin Company; 2000 [cited 2005 Sep 30]. Available from: <http://dictionary.reference.com/search?q=innovation>.

Table 3. Initiatives using IDEO Innovation Methodology

| Project | Goal | Timeframe | Key deliverables | Sponsorship |
|---------------------------------------|---|---|---|--|
| Perinatal | Pilot: Review and internalize methodology Refinement and measurement of selected perinatal prototype | August-December 2003 June 2004-June 2005 | Perinatal Journey Home tools | Innovation sponsors |
| Transforming Care at the Bedside | To foster a culture of innovation through transforming bedside care | August 2003-ongoing | Improved patient and staff satisfaction, reduction in patient falls | Roseville Hospital leadership and the Institute for HealthCare Improvement, RWJF |
| Nursing Care Experience | KP is the national model for personalized care, which results in the superior care experience | January 2005-ongoing | Care Experience framework, medical center project management training on innovative methodology | Interregional Nursing Council |
| NW Medical Office Building (Orchards) | Design of medical office building (MOB) | February-April 2004 | Design of new MOB | NW Operations, Medical Group and Labor Leadership |
| KP HealthConnect | Design of bed management and shift change workflow and KPHC integration | April 2004-April 2005 | Decrease in time spent in shift change, oncoming nurse sees the patient sooner, potential decrease in LOS, influenced design of Epic module | Innovation Sponsors |