

## PRHI's customized Kaizen improves patient care, worker satisfaction



**Center, back:** Greg Thomas, Asbury Resident and Family Support Services Coordinator  
**Center row, L-R:** Linda Marino (Family Member), Charles McMinn, (RN, Program Manager), Kathy Czegan (LPN), Cara Todhunter (NHA), Betty Zawatski (RN), LaNiece Butler (CNA)  
**Front row, L-R:** Pat Grummick (RN, Director of Nursing), Sheila White (CNA), Christen Bosh (Activities Asst. Director)  
**Not pictured:** Mary Jane Lang (RN, Clinical Functions Coordinator) and Barb Brown (Family Council President)

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PRHI's Center for Perfecting Patient Care<sup>SM</sup> has been approved by the Pennsylvania State Nurses Association as a provider of continuing education.

Asbury Heights, a Methodist-affiliated residential living and healthcare facility in Pittsburgh, offers a continuum of geriatric care for residents. The 51-bed "Willow" unit in the long-term care facility cares for residents with Alzheimer's disease and other forms of dementia.

Because respect for residents is paramount to the mission at Asbury Heights (see *Mission Statement*, this page), family members sit on every one of its care councils. When family members complained that their loved ones in the Willow unit did not always

have clean hands before and after meals, staff took the matter seriously.

### Mission Statement



*United Methodist Services for the Aging is a faith-based organization whose mission is to improve the lives of older adults through high-quality compassionate care.*

The issue of hand hygiene among residents gave staff a chance to use the skills they acquired in their training in Perfecting Patient Care<sup>SM</sup>, Toyota-based process improvement.

Asbury invited PRHI coaches Barbe Jennion and Steve Taninecz to guide them through a "lightning round" of improvements aimed at fixing the problem for good. This four-day, intense

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## Asbury Heights Kaizen improves patient care, worker satisfaction



Plastic bags (above) tied onto carts created mess, hassle and waste. A \$30 cart accessory basket (below) solved the problem once and for all.

*"I love the waste basket on the cart! It saves motion and time."* — Willow CNA



problem-solving session is called Kaizen, which translates from the Japanese roughly as “change for the better.” It calls for improving satisfaction, quality, time, and finances, as a result of removing waste from the system.

### Preparation predicts success

Jennion and Taninecz knew that a successful Kaizen must be designed well. They looked at the hand hygiene problem as a good candidate, because of its regular, repetitive nature, and its importance to the caregivers, residents and family members.

Prerequisite to any Kaizen is leadership involvement. Asbury’s top management did not merely assent to a new project: they assigned a top administrative team leader, Stacey Mikelonis, to support the work. Mikelonis’ high-level Guidance Team of Asbury managers:

- selected a vibrant, cross-functional Kaizen Team to investigate, test, and implement improvements
- selected a team leader, Administrator Cara Todhunter, to shepherd the process
- agreed to remove barriers to the work as it proceeded, and do what was necessary to ensure that the Kaizen was successful.

### Business case and metrics

A clear statement of the business case focuses on the importance of the problem from the perspective of the patient, caregiver and institution. Money is not the entry point; the primary motivation is always the dignity and comfort of residents. The absence of a formal process for resident hand washing increased the chances of infection, a major concern in nursing homes, and resulted in a loss of dignity for patients and complaints by family members.

The goal of the Kaizen would be to make staff aware of the need for resident hand hygiene, establish a clear process and concerted training for all staff members. Initial observation suggested that residents underwent hand cleansing before and after meals less than one percent of the time. Success would be determined by:

- Follow-up observations to see whether hand hygiene

increased

- Family council and resident feedback and surveys
- Analysis of utilization and cost of supplies (the last, not first, consideration)

### Unmasking problems

Establishing a blame-free environment is the key to unmasking systemic problems. Workers and residents want to do the right things, but a needlessly complex system can make it nearly impossible to do so. When the system produces those nearly inevitable slip-ups, workers often find themselves the object of blame. Acknowledgement by top managers that most problems are with the system, not the people, helps to reverse the culture of blame.

“The conversation went from, ‘Staff isn’t washing residents’ hands,’ to ‘Are they aware that they’re supposed to?’” said Jennion.

Fixing that first problem often yields dramatic results, and exposes an underlying web of problems which, once revealed, can also be fixed. At Asbury, the Kaizen Team began by describing known hand hygiene criteria: residents’ hands were to be cleansed with gentle, antibacterial wipes before and after each meal. They then designed a “current state map” of how it’s done now; and a “future state map” describing the ideal process.

The question boiled down to this: *How could it be made easy for residents’ hands to be cleaned properly as required?* From this question, the first steps emerged. The wipes—obviously, two of them—had to be in an obvious and consistent place on meal trays, had to come in a packet that was easy to open, in a size large enough to be convenient, and couldn’t be too expensive.

### Go and see

The Kaizen Team observed hand hygiene during meal times, and immediately saw problems that the staff had been working around for years. Even with staff members trying as hard as they could, knowing why they were being observed, success was achieved only about 44% of the time.



**Clothing protectors were stored in various inappropriate places, far from the point of use. (above)**

**The Director of Facility Services fashioned hooks on the side of the food carts, (right) making them handier and less likely to be thrown away. Resulting savings in one unit alone topped \$3,000 per year.**

***“The hook on the cart for the clothing protectors is brilliant!”***

**— Shelley, CNA**





## Asbury Heights con't

The Kaizen Team mapped out the problems they saw: clothing protectors and hand wipes were not readily available.

Clothing protectors, thin plastic and paper gowns to cover the residents' clothes during meals, were often stored on top of the food cart, where trays or plate covers were often placed. In fact, clothing protectors could often be found hanging on hand rails, on the piano, and in patient rooms, in an attempt to keep them close to the point of use.

The problem was that incorrect storage soiled and spoiled countless clothing protectors, which, at 10 cents apiece, really added up.

As expected, observations turned up other seemingly intractable problems. Trash bags were tied to the handles of the food carts, creating mess and inconvenience that had been tolerated as long as anyone could remember. It took a team trip to the food preparation center to solve the problem, immediately and permanently. Unbeknownst to most of the staff, the carts' design accommodates a waste bin. Once fitted with new waste bins, use of plastic bags stopped. (See illustration, page 2.)

Solving the problem of wasted and misused clothing protectors took a little more ingenuity. To keep them close to the point of use, it made sense to find a way to attach them to the food cart. But the cart manufacturer did not offer an option that would work, so a maintenance technician, using spare parts on hand, devised a peg for the clothing protectors and installed them on each cart. Clean clothing protectors were always at the ready now, and the waste ceased. (See illustration, page 3.)

### A more complete view

The team fanned out to look at the entire standard of care around meal times, moving toward the "future state" they'd mapped earlier in the Kaizen. They discovered a way to ensure that hand wipes on the tray were always in the same position, which was not only efficient for workers, but helped family members and private duty staff quickly adopt the new process. In formalizing these procedures, the team created job instruction sheets,



Before

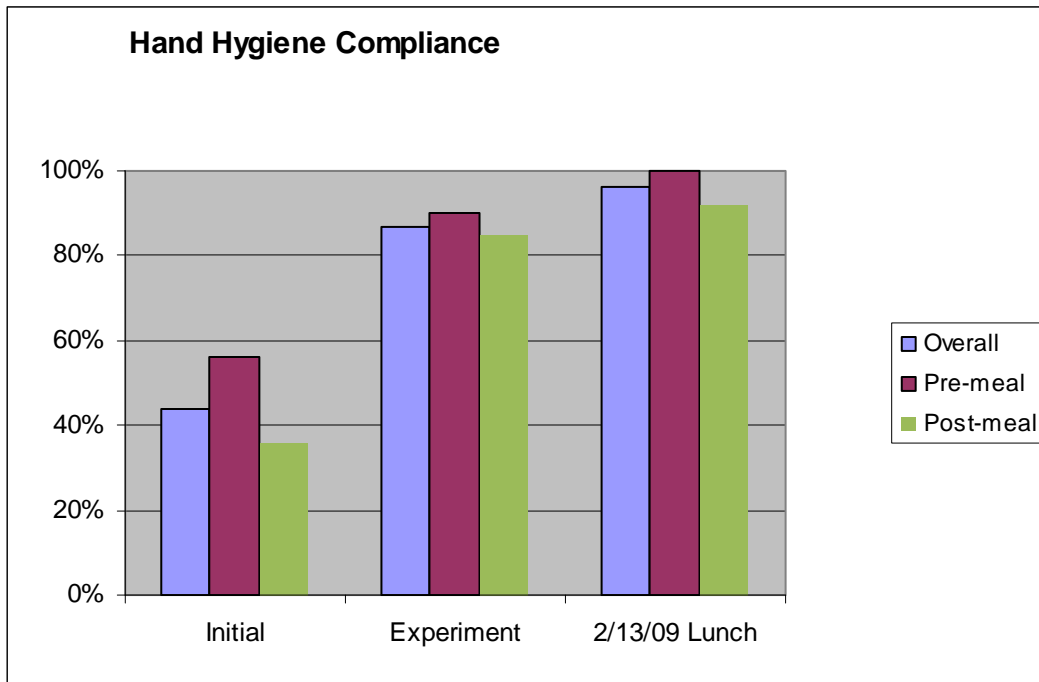


After

Trays were assembled in a non-standard way (top); standardizing the layout ensured that the new, larger hand wipes were easy to find and use.

*"The big wipes are easier to open and better for washing residents' hands." — Willow RN*

## Asbury Heights con't



### Results (left)

Follow-up confirmed that the new hand hygiene methods were working about 98% of the time. The processes, techniques and materials have been adopted across the facility. All workers have been trained. Residents, family members and staff report improved satisfaction at meal times.

simple drawn pictures illustrating the steps involved in, for example, positioning of the hand wipes on the food tray or pre- and post-meal hand hygiene. The sheets also include three columns: What to do; How to do it; and Why it needs to be done. (That last column is created out of respect for the worker, who needs to know the reason for the work.)

Even the most routine event—the thrice daily feeding of residents—turned out to be far more detailed than staff had anticipated. Standardizing some of the most obvious steps did two things: 1) it revealed additional problems, but 2) it freed time for staff members to continue making improvements.

### Results

Now that food carts had hooks to hold the clothing protectors, that waste—over 30 per day in the Willow unit alone—ceased, saving Asbury about \$3,300 per year. The hooks were fashioned out of material that would otherwise have found its way into the waste stream.

Adding eight waste cans to the food carts cost about

\$350, but the cost of the plastic bags, and the extra time spent dealing with them, ended.

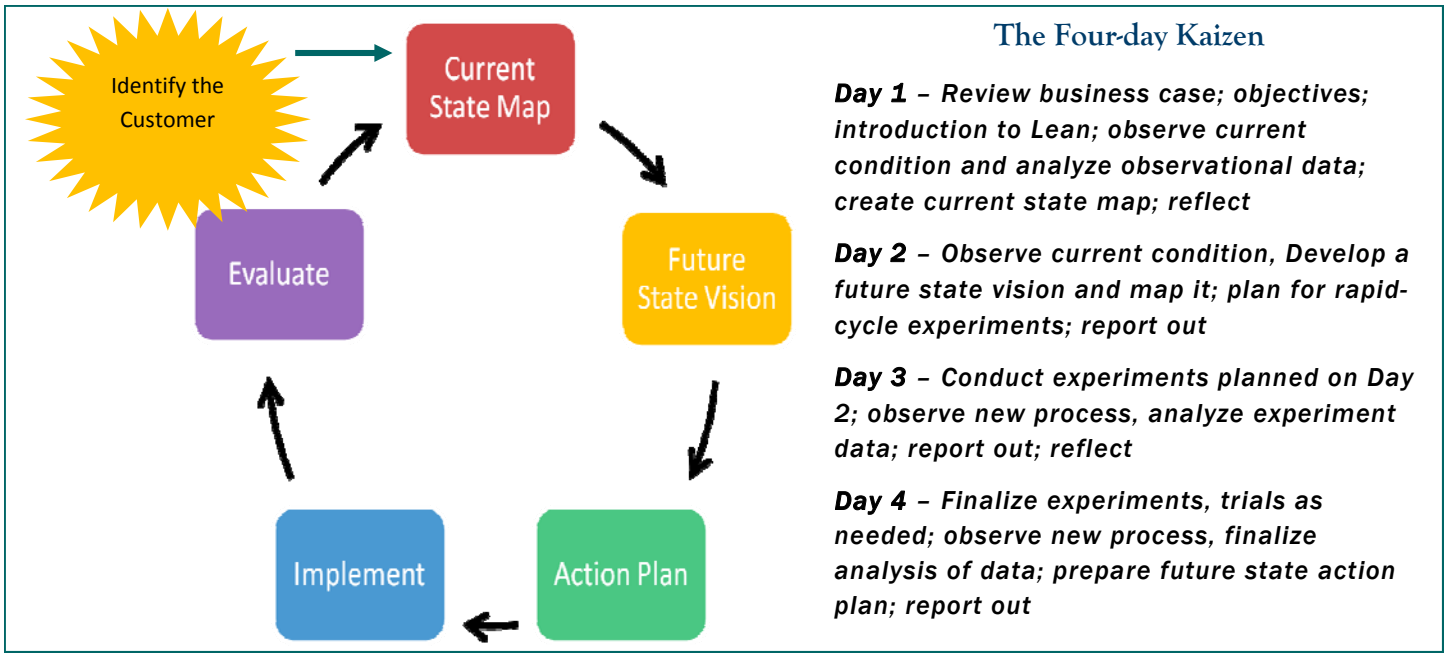
At the start of the project, hand wipes on the trays were simply discarded, generating \$1,117 of pure waste. Providing two larger, better wipes per tray costs \$7,818; however, residents, their family members, and staff, all report much higher satisfaction. Better hand hygiene ultimately means that Asbury's already-low infection rate should decline further.

Success tends to feed on itself. Once top managers begin to embrace the Lean philosophy, going to the workplace to remove barriers and assist in process improvements, it is possible to move Kaizen and continuous improvement into other areas—even clinical ones. Standardizing procedures and removing waste makes residents safer, and increases satisfaction among residents, families and workers.

### Sustaining the gain: Post-Kaizen

Follow-up observations two weeks after the Kaizen revealed that the new hand hygiene process was followed 98% of the

## Asbury Heights cont'd



time. At the follow-up meeting, the leadership team agreed to continue reviewing open items; ensuring improvements are achieved; discussing additional opportunities; continuing to improve progress toward the ideal future state; and implementing countermeasures (which include standardizing, documenting, measuring, and training).

“Comments from staff are very favorable about the new process,” says Jennion. “The real vote of confidence came

when staff on the other units saw and heard from Willow how well it was going and started to use the process themselves.”

All units have now been trained and are officially using the new process. Observations of those units will take place soon, and the results will be used to create a new “Current State Map.” From there, further improvements can be made.

## Hand hygiene in a nursing home: Why it matters

To those uninitiated in systems thinking, spending four days of intensive staff time to fix a seemingly simple problem, like wiping residents’ hands before and after meals, might seem like a waste of time.

But to those who understand how seemingly simple problems can quickly lead into a web of complexity, solving one problem at its root cause, in a way that means it will never recur, is a very big deal. The Asbury Kaizen shows that following one problem and using the ideas and talents of frontline staff to fix it, can yield quick, impressive results.

The Kaizen event taught frontline workers how to:

- Focus intently on ONE problem, and follow it across the work “silos” in the organization
- Analyze the connections from one person’s work to the next, to see where communication was breaking down
- Design—as a cross-functional team—small, quick experiments in making the work flow better
- Look at whether the experiment made things better (or not), and decide on the next steps

The Kaizen activity was a way to take the basic classroom information imparted in training like PPC University and others, and spread it to the point of care. The Kaizen used

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the creativity of every person close to the work, and freed up the time necessary to untangle the problem all the way to its root causes. It improved communication among departments that may never have had reason to talk before.

In short, the Kaizen activity is a way to honor people close to the work, foster work redesign, and create a learning

organization. As more are done, the learning spreads throughout the facility, and more problems are solved, one by one, to root cause. Backsliding is minimal, because the work itself has been redesigned by the people doing it—and those people know how to improve it further.

For more information about holding a Kaizen event at your organization, call Barbe Jennion at PRHI, 412-586-6711.

## Belmont University course complements PPC University, attracts international participants



PRHI's Steve Taninecz reviews the learning from the circuit board exercise.

Of the 22 participants in the February week-long Belmont University Lean Certification Course in Nashville, five healthcare professionals traveled from Singapore, one from Malaysia, and one from Sweden.

Some who have already attended PRHI's Perfecting Patient Care<sup>sm</sup> University appreciate the reinforcement and additional teaching approaches of the Belmont Course, offered through the Massey Graduate School of Business.

Headed by Nashville's Healthcare Performance Partners (HPP), the Belmont certification course is offered in partnership with PRHI, Lean Healthcare West, and Exempla Health of Denver.

The February course offered nationally renowned Lean healthcare practitioners from around the country:

- PRHI trainers Barbe Jennion, Steve Taninecz and Laura

Mahood led a day-long circuit board exercise and helped with a workplace simulation exercise

- Cindy Jimmerson of Lean Healthcare West led a day-long seminar in value stream mapping and A-3s
- Dr. David Munch of Exempla Health led a half-day orientation on communications and team-building
- HPP trainers used videos and photographs from actual healthcare sites, and hands-on exercises, to demonstrate the principles of the Toyota Production System, which were taught throughout the week

The next Belmont University Course is scheduled for October 19 – 23, 2009. Register at [www.buleancourse.com](http://www.buleancourse.com) or call Jessica Shaw at 615-206-0701.

### On the Bookshelf...

Graban, Mark. *Lean Hospitals: Improving Quality, Patient Safety, and Employee Satisfaction*

Grunden, Naida. *The Pittsburgh Way to Efficient Healthcare: Improving Patient Care Using Toyota Based Methods*

Jimmerson, Cindy. *A3 Problem Solving for Healthcare: A Practical Method for Eliminating Waste*

Liker, Jeffrey. *The Toyota Way*

Nance, John. *Why Hospitals Should Fly: The Ultimate Flight Plan to Patient Safety and Quality Care*

## CALENDAR

Date	Day	Time	Event	Place	Contact	CME	Register
May 20, 2009	Wednesday	8:00 a.m. - 5:00 p.m.	Workshop: Lean Problem Solving and Decision Making for Health Care	Hospital Council of Western PA, Warrendale	Jane Montgomery 724-772-7264 montgomj@hcwp.org	Yes	Registration required
June 3, 2009	Wednesday	8:00 a.m. - 12:00 p.m.	Workshop: Visual Management in Healthcare	Hospital Council of Western PA, Warrendale	Jane Montgomery 724-772-7264 montgomj@hcwp.org	Yes	Registration required
July 13 - 16, 2009	Monday-Thursday	8:30 a.m. - 5:00 p.m.	Perfecting Patient Care <sup>sm</sup> University	Courtyard Marriott, Monroeville	Barbe Jennion 412-586-6711 bjennion@prhi.org	Yes	www.prhi.org Registration required
September 21 - 24, 2009	Monday-Thursday	8:30 a.m. - 5:00 p.m.	Perfecting Patient Care <sup>sm</sup> University	Courtyard Marriott, Monroeville	Barbe Jennion 412-586-6711 bjennion@prhi.org	Yes	www.prhi.org Registration required
November 2 - 5, 2009	Monday-Thursday	8:30 a.m. - 5:00 p.m.	Perfecting Patient Care <sup>sm</sup> University	Courtyard Marriott, Monroeville	Barbe Jennion 412-586-6711 bjennion@prhi.org	Yes	www.prhi.org Registration required



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