

MISSION

To serve through healing, education and discovery.

VISION

To be nationally recognized for excellence in patient care, medical education and biomedical research.

VALUES

Integrity • Excellence • Compassion Innovation • Collaboration • Dedication





The University of Tennessee Medical Center | Community Benefit Report 2013

\$49 million

Total Community Benefit and Investment

\$296,337 Cash and in

Kind Support

\$177,931 Research

\$421,133 Community Building

Activities

\$336,388 Community Services

\$30,851,015 Charity Care

\$16,928,774

Education

Community Benefit Letter

Assessing Community Health

The University of Tennessee Medical Center has long standing roots within the East Tennessee Community. For more than 50 years these connections have acted to improve the overall health of our patients and the community with compassion and individual attention. The patients and families we care for are not just our patients, but also our neighbors, relatives, friends and fellow team members. With more than 4,000 team members, the medical center is one of the largest employers in East Tennessee and serves as an important source of economic stability and growth.

Serving Through Healing, Education and Discovery

As the region's only academic medical center, not only do we deliver excellent care and deploy the latest technologies and treatments, we also provide sophisticated training for future physicians, clinicians and scientists and conduct research to discover the cures and treatments of tomorrow.

We are honored to serve the community and proud to share with you some of our services through this annual community benefits report. The benefits provided by the medical center take many forms—such as community education, free screenings, seminars, charity care, research and many other unique efforts to help those in need. The services provided to patients and families are far reaching and impact all communities within East Tennessee.



The future and landscape of healthcare is changing. In response to these changes the medical center will continue to offer more comprehensive services to more patients needing care, whether it be with a primary care doctor or for treatment of a chronic disease. The community knows they can come to the medical center for routine needs, such as annual physicals, immunizations and cancer screenings, as well as for more specialized care, such as cardiac testing, cancer treatment, emergency care, or fertility services.

Community Commitment

As more people choose to receive their care from The University of Tennessee Medical Center, we continue to work harder. Even as we care for the patients who come through our doors every day, the medical center is committed to understanding the broader health needs of our community. Over the next year, we will expand our Emergency Department to house more than 100,000 patients a year and open a new floor within the Heart Hospital to meet community healthcare needs.

While working with the Knoxville Health Department and surveying the community to track major public health challenges, we will continue to develop programs designed to address the public's most pressing health concerns. In addition, we meet with local officials to discuss goals, and involve local citizens on our volunteer committees and act as advocates for our team members and the public on important healthcare issues, taking our concerns to local, state and federal representatives.

We invite you to take the opportunity to read about our commitments in the community, through care, education and research. Thank you for your continued support and we look forward to serving you and your family for years to come.

Joseph R. Landsman, Jr. President and Chief Executive Officer University Health System, Inc.



ur hope while reviewing this report you will have discovered the work the University of Tennessee Medical Center does on a daily basis to improve the health of our communities. Our work is driven by our conviction that good health is a fundamental right shared by all, and by our commitment of prevention and health promotion. To that end, we share our assets – our financial resources, research, physicians, and clinical practices. But more important, we share ourselves.

At the University of Tennessee Medical Center, we understand that good health extends beyond the doctor's office and the hospital. It begins with healthy environments: fresh fruits and vegetables in neighborhood stores, successful schools, clean air, accessible parks, and safe playgrounds. These are the vital signs of healthy communities.

Our priorities are focused on reducing risk behaviors associated with development of chronic diseases such as cardiovascular, cancer, diabetes, and obesity. Community health efforts include providing resources for health fairs, health prevention screenings, as well as training for health professionals through continuing medical education.

Delivering real benefits to the community also requires accountability. This means we not only need to share our resources, but also learn from our community partners, deliver on our

promises, measure what we are doing, identify what is working, and report on a regular basis to our communities.



Rhonda McAnally, RN BSN CEN Director, Network Development

Director, Network Development
Community and Corporate Health



The University of Tennessee Medical Center is deeply engaged in its communities to improve the lives of families across East Tennessee by providing compassionate, innovative care. A key feature of that engagement is the collaboration of partners to identify and understand the health needs in those communities. In Knox County, a coalition of 120 organizations led by the Knox County Health Department regularly assesses the health of the community through local and state health data and surveys.



American Heart Association American Diabetes Association **American Cancer Society** American Lung Association Alzheimer's Association Coordinated School Health Cherokee Health Systems Community Action Committee Office on Aging Cystic Fibrosis Foundation East Tennessee Children's Hospital East Tennessee Wellness Roundtable East Tennessee Regional Health Office East Tennessee Regional Health Departments & Councils Helen Ross McNabb Center Interfaith Health Clinic **Knox Area Project Access**

Knox Area Rescue Ministries Knox County Health Department Knoxville Academy of Medicine (KAPA) **Knoxville's Community Development Corporation** Komen Knoxville Foundation **MEDIC Regional Blood Center** Mental Health Association of East Tennessee Metropolitan Drug Commission Second Harvest Food Bank Smoke Free Knoxville Together! Healthy Knox Partnership United Way of Greater Knoxville UT Graduate School of Medicine University Physician's Association **UT Ag Extension Services** YMCA of East Tennessee

Education of Health Professionals

The way we train, learn, and practice medicine is changing. Our progressively more complex healthcare system has resulted in the need for major alterations to the classic medical education model, and complex technologies for patient care now require more specific and specialized training.

Perhaps the most important innovation to arise from these changes is medical simulation.

When rapid and accurate assessment, along with the ability to resuscitate and stabilize is required, skills needed to manage critically injured patients must be instinctive. Such instincts are acquired through training and dedicated practice which is facilitated at the UT Center for Advanced Medical Simulation. Those instincts were put to the test on October 2, 2013, when a bus carrying a church choir blew a tire on I-40 in Jefferson County and hit a semi-truck head on.

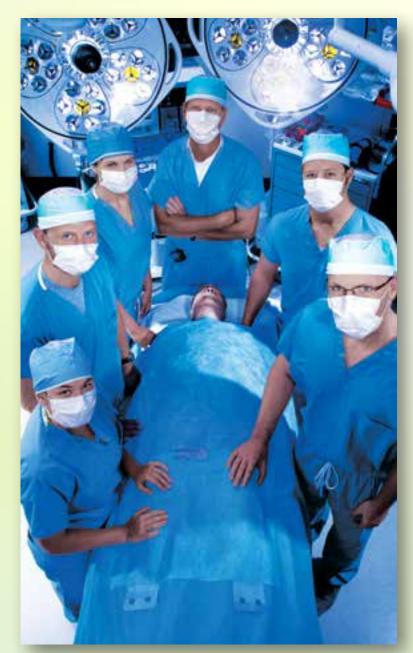
In order to be prepared for any situation, doctors say training is key. That's where the UT Center of Advanced Medical Simulation comes into play. Medical professionals at The University of Tennessee Medical Center practice real life scenarios in a simulated operating room, intensive care unit, and birthing room.

In emergency situations like the October 2, church bus crash, doctors didn't have hours or days to prepare. They had minutes.

"Everyone gets together, runs through a scenario, and we video tape it. Then we are able to take that and break it apart. They see where their strengths are and where their weaknesses are," says Brian Daley, MD, UT Division of Trauma. Doctors have learned a lot since October 2 and they will continue to learn every single day.

It's part of the commitment of The University of Tennessee Medical Center toward better care. The medical center has the ability to take people, train them so they are performing at their best every day.

UT's Simulation Center is one of 70 hospitals in the world that is accredited by the American College of Surgeons Association of Educational Institutes.



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The Fall Jubilee was always the highlight of the year for the Young at Heart, a church choir group from Front Street Baptist Church in Statesville, North Carolina. The annual trip to Gatlinburg, three days of "singing, laughing and preaching," became an unforgettable tragedy as they returned home on October 2, 2013.

Tennessee Highway Patrol investigators later determined that something in the road—no one knows what—damaged a tire on the bus. Fifty miles down I-40 in Jefferson County, the driver, Randy Morrison, realized that he had missed a turn. As he turned the bus around, the damaged tire blew. The bus skidded across a median and crashed into an SUV and one tractor-trailer truck traveling in the opposite direction. The bus came to rest on its side, the truck caught fire, and wreckage scattered across two lanes and into the median.

The 911 call center received the first of 15 calls from the scene of the accident and immediately dispatched emergency personnel. Early calls described multiple injuries and fatalities, and EMS personnel sent out a request for additional assistance and a LIFESTAR aircraft from The University of Tennessee Medical Center.

The first medical and fire units arrived on the scene within five minutes. At 2:06, a second medic unit arrived, and EMS personnel began to assess and treat patients.

UT LIFESTAR and MED-LINK 2 (the Regional Medical Communication

Center) played an integral part in the care and transport of the victims involved in the bus crash on Interstate 40 in Jefferson County, TN on October 2, 2013. More importantly, the incident demonstrated the commitment to collaboration and partnership with local and regional emergency service agencies who responded to the incident.

As with the majority of large scale incidents such as this one, UT LIFESTAR and MED-LINK 2 had the opportunity to participate in After Action Reviews (AAR) with local, regional, and State providers. While all entities performed admirably, there were some identified opportunities and "lessons learned" which have been shared locally, as well as on a State level in an attempt to identify best practices and loop closure.

These lessons have been/will be shared with:

- UT Medical Center Nursing Grand Rounds
- Knox County Health Department
- American Red Cross, Knoxville Chapter
- State of Tennessee Department of Health
- Emergency Preparedness
- Region 2 EMS Directors Association
- Loudon County E-911 Center
- Tennessee Emergency Number Association (911 Center) State Conference
- Tennessee Emergency Preparedness Summit Jackson, TN (November 2014)

Community Health Improvement

The University of Tennessee Medical Center has been dedicated to being the leader in improving the health and wellness of the people in East Tennessee for over 50 years. That dedication is not just to providing high-quality care within the four walls of the medical center, but also out in the community as well.

According to the most recent Knox County Community Themes and Strengths Assessment, survey participants identified poor

eating habits as the third most impactful risky behavior in Knox County.

The University of Medical Center also recognized that unhealthy diets and limited access to fresh produce have a negative effect on the health of many East Tennesseans and was in a distinct position to provide access to locally grown fruits and vegetables by hosting an onsite farmers' market.

According to the United States Department of Agriculture (USDA), the number of farmers' markets has seen a steady growth over the last several years. And medical enters across the country have discovered that offering regular farmers' markets on site helps to fulfill their mission by supporting community wellness and healthy lifestyle behaviors.

As a way to improve access to healthy foods, provide nutrition education, and support local agriculture, The University of Tennessee Medical Center partnered with Ritter Farms and began hosting a farmers' market on campus in May 2013.

Ritter Farms is a second generation family farm in Grainger County owned and operated by Stanley and Tonya Ritter. Ritter Farms practices no GMO (genetically modified organisms) farming and grows their crops with a minimum of chemicals. It made perfect sense to partner with them to provide access to locally grown produce for our staff, patients, and visitors.

By the end of the farmers' market season, attendance nearly doubled, which increased the likelihood that patients, visitors, and team members took advantage of the access to nutritious fresh foods. The market also provided a fun, outdoor venue for educating passersby about nutrition, food preparation, and the benefits of eating fresh and locally produced foods, all of which could lead to the development of long-term healthy eating habits.

Medical Center is helping to strengthen our local economy and community, demonstrating our recognition that supporting local growers and providing access to food produced locally plays a key role in the health and well-being of our community.

By hosting an onsite farmers' market, The University of Tennessee

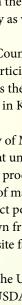


The Cystic Fibrosis Clinical Trial team with Dr. Bruce Ludwig (third from right). Ongoing research to find a treatment for cystic fibrosis may finally pay off. Bruce Ludwig, MD, Clinical Assistant Professor of Medicine and Medical Director of the Adult Cystic Fibrosis Program, and his clinical trial team are partnering with Vertex Pharmaceuticals, Inc. to study the underlying mechanism of the gene that causes cystic fibrosis and its protein product.

Cystic Fibrosis is the most common fatal genetic disorder of Caucasians, affecting about 30,000 people in the US. It is a genetic defect in a protein that impacts the transport of chloride, sodium and water in all ducts of the body. This can cause bronchiectasis with chronic and recurrent lung infections, often with resistant bacteria. Patients also suffer from malnutrition, diabetes, liver disease, respiratory issues and sometimes death. Most current medications are directed to treat symptoms of the disease, but now there is a drug approved to treat the root cause of the disease.

This trial studies the Vertex drug, Kalydeco, combined with Lumacaftor in patients with cystic fibrosis. The pairing should improve transportation to the membrane and improve lung function. If proven to work, the outcome would benefit at least 50 percent of patients with cystic fibrosis who carry two copies of the Delta F508 mutation. The Food and Drug Administration called the collaboration of the two drugs "breakthrough therapy designation" for its effort to speed the development of potential treatments for life-threatening diseases or conditions. "These patients would not be able to receive this type of medication if it were not for this clinical trial," said Ludwig. Ludwig and his team expect to see significantly improved lung function in patients and improved weight control in the short term. He hopes the long-term effects will translate to improved survival rates, reduced infections and hospitalizations, and eventually turn cystic fibrosis into a much more controllable disease.

"Being able to continue to participate in trials like these give them hope for their future," said Dr. Ludwig. "Hope that one day there will be a cure for the disease that challenges their daily lives."







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Heart Lung Vascular Institute

Adult Cystic Fibrosis Center

The Heart Lung Vascular Institute at TheUniversity of Tennessee Medical Center developed the Adult Cystic Fibrosis (CF) Center in conjunction with the pediatric program of East Tennessee Children's Hospital to provide quality, multidisciplinary care for adult patients with cystic fibrosis. As the only adult CF center in the region, it aims to serve East Tennessee to ensure adult patients receive quality, omprehensive care.

For the past several years the Heart Lung Vascular Institute has sponsored an event hosted by the Knoxville Chapter Cystic Fibrosis Foundation to raise awareness of the disease in the general community and serve as a regional information resource.

What is Cystic Fibrosis?

Cystic fibrosis is an inherited disease that causes thick, sticky mucus to build up in the lungs and digestive tract. It is one of the most common chronic lung diseases in children and young adults, and may result in early death. Research suggests that people with CF who live in households with lower incomes are more likely to have lower lung function and lower body mass index (BMI) or BMI percentile. This pattern of health in lower-income households is also common in other chronic diseases, such as diabetes





olunteers play a significant role in the success of the medical center by providing compassion and gracious support to patients and the community. They brighten the day and offer companionship to our patients and their family members. They also provide invaluable staff support services. The volunteers who walk the halls of the medical center contribute on everage more than 30,000 hours per year of volunteered time, as well as resources and support for our team members.

Volunteers are involved in activities such as delivering flowers and gifts, cuddling NICU babies, and helping out in areas like the Cancer Institute. Hospital volunteers are also a valuable source of information for patients' families and friends, and they do especially important work in serving as liaisons during crucial times.

Identified by their blue shirts and smiling faces, volunteers can be young adults or retirees, all ages and all backgrounds. Our nearly 300 volunteers are divided among Auxiliary workers, independent volunteers and junior volunteers.



First row from left: Barbara Kaminsky, Ethel Peterson, Barbara Tipton, Helen Kopp.

Second row: Stephanie Wayland, Carolyn Humberd, Garnet Hallock, Sylvia Poindexter, Theresa Wright.

Third row: Duane Johnson, Jolyn Davenport, Jim Grubb, Rusty Jackson, Sue Hay, Gloria Blalock.

Opportunities and Roles

- Provide companionship and support to patients of all ages who are hospitalized on nursing floors, in the ER or in other patient areas, so as to make their hospital stay as comfortable and pleasant as possible.
- Act as an advocate and liaison for patients and their families.
- Dispense information to patients, their families, and guests, either in person or on the telephone.
- Act as a messenger or patient escort.
- Distribute books, magazines, newspapers and games.
- · Perform clerical duties.

How You Can Help

By volunteering at The University of Tennessee Medical Center, you can help change our community and touch the lives of our friends, families and neighbors in a very special way. There is always a need for compassionate volunteers.

To learn how you can contribute, call 865-305-9515 or complete an online application at utmedicalcenter.org/jobs/volunteering.

Volunteer Contributions

Among our volunteers is the Auxiliary member group, which has its own board of directors. Members of the Auxiliary have a long-term commitment to service at the medical center, and they operate the gift shop and manage its profits as well as several other fund raisers on our campus. To date, the Auxiliary has contributed more than \$2 million to purchase equipment, support nursing scholarships and provide other medical resources that improve the lives of people in our community. Its support has contributed to various projects such as the private rooms in the Neonatal Intensive Care Unit and the completion of the new Health Information Center.

Volunteer Contributions

Emergency Department

Volunteers in the Emergency Department assist the staff and help the trauma center function at its highest level. Volunteers attend to the needs of patients and their families, assist patient representatives, escort patients and visitors to their destination, stock blankets in the warmer, pick-up and refill supplies, collect wheel chairs and deliver samples to pathology lab. The Volunteers make a difference to our team members by providing additional support and also make a difference to our patients and family members by lifting their spirits with a warm smile and a caring touch.

Center for Women and Children's Health



The Regional Perinatal Program at the University of Tennessee Medical Center in Knoxville is addressing the increasing number of infant deaths in Tennessee due to unsafe sleep environments through a three-prong approach to professional and community education targeting the following three groups: prenatal and pediatric healthcare professionals; infant parents and/or caregivers and community partners/advocates.

The Regional Perinatal Program utilizes existing longstanding relationships developed throughout the years serving as one of five designated State Perinatal Centers. The Regional Perinatal Program has over four decades of successful perinatal outcome improvements through provision of quality patient care, outreach, collaboration and education.

Our mission is to collaborate with institutions, agencies and individuals to reduce preventable infant deaths that occur in the sleep environment. According to Tennessee Child Fatality Review reports from 2005-2011, deaths due to unsafe sleep environments continually increased from 61 in 2005 to 131 in 2010. The deaths decreased to 120 in 2011. In-depth review showed:

- In over 85% of deaths, the infant was not in a crib or bassinette:
- In over 67% deaths, the infant was sleeping with other people;
- In over 46% deaths, the infant was not positioned on the back.

In general, infant mortality in Tennessee is higher in the African American population and in families in lower socioeconomic/income families. However, unsafe sleep environment deaths occur in all race, socioeconomic and income categories.

> The Regional Perinatal Program provides education through in-services, health fairs, classroom instruction and conferences for the following: physicians, nurses, advance practice nurses, childbirth educators, home visiting agencies, childcare providers, expectant and new parents, EMS and fire departments, and other infant caregivers and community advocates.

During the past 4 years, collaborations with the Regional Fetal Infant Mortality Review Team and the Child Fatality Review Team in Knox County have been instrumental in developing the East Tennessee Safe Sleep Initiative which brings partners together to collaborate in innovative ways to reduce deaths from unsafe sleep environments. Through additional funding, the Safe Sleep Initiative is designated as a regional crib distribution program for parents without proper sleeping conditions or means to purchase safe sleep bedding for their infant.

The Regional Perinatal Center's partnering agencies include: Knox County Health Department, East Tennessee Regional Health Department, McNabb Healthy Families Program, Department of Children's Services, Knox County School's Parents as Teachers Program, Nurse-Family Partnership, East Tennessee FIMR, Knox County Child Fatality Review, University of Tennessee Medical Center, East Tennessee Children's Hospital, Turkey Creek Medical Center, Physician's Medical Center Tennova, Covenant Health, HUGS programs in 16 counties, Anderson County Healthy Families/Healthy Start Programs, University of Tennessee Extension Services, Rural Metro Ambulance Services, City of Knoxville Fire Department, Childcare Resource and Referral Signal Services, Lisa Ross Birth and Women's Center, Roane State Community College, East Tennessee Commission on Children and Youth, and March of Dimes.

The Regional Perinatal Program has provided Safe Sleep messaging and education to over 8,000 people using various methods including health fairs, childbirth classes, in-services, lunch and learns, train the trainer programs and meeting with small groups. Outcomes are being tracked and reported by documenting number of programs, number of attendees and, when feasible, pre and post test evaluation and tracking attitude/ knowledge changes.

Building of HopeAs the largest provider of cancer care in the region, the Cancer Institute offers the broadest spectrum of cancer specialists and services to care for the adult population. From prevention and early detection strategies to survivorship and end of life supportive care and everything in between, the Cancer Institute is for the community of East Tennessee.

The new Cancer Institute facility, 83,000-square foot cancer area, was built in 2012 after years of increasing cancer patients and services. Before the Cancer Institute was built, feedback from the community, current patients and former patients were taken into consideration for the design and layout of the new building. Not only did the new facility give access to hundreds of new cancer patients, but also introduced comprehensive services and a peaceful environment centered on the experience of the patient.

Cancer Institute

Presenting New Innovations

In addition to PET/CT imaging, the Cancer Institute houses the advanced Varian TrueBeam system. TrueBeam provides advanced technology and innovations to treat body. Using this software and the TrueBeam system, radiation oncologists are able to track the progress of treatment and pinpoint the cancer's location while minimizing unwanted radiation exposure to adjacent healthy tissues.



Brain and Spine Institute



From the moment a stroke occurs, patients must race against the clock to get treatment that can prevent lasting damage. Not everyone is as lucky as

Heath Woods, who, one year after suffering a major stroke, is well on his way to full recovery and looking to get back on the field.

Ejected from a season-opening game after a disagreement with officials, Woods was upset. Then he started to feel sick. Thinking the problem was just dehydration, he was on the phone with his wife when he began to get dizzy and nauseated. In just a few minutes, his right side went numb and he could no longer stand up straight. Emergency medical technicians, on the sidelines in case the players needed care, ran over to help and diagnosed the problem as a stroke.

Woods recalls, "As I was in the ambulance being driven away, I thought to myself, 'I can't believe this is happening to me. I was fine just an hour ago." Woods, who was only 45 at the time, had no family history or prior symptoms of stroke.

But the University of Tennessee Medical Center physician who treated him, Peter Kvamme, MD, says, "A stroke can happen to anyone, at any time, anywhere." The Comprehensive Stroke Center at The University of Tennessee Medical Center is unlike any other facility in the region.

Our stroke team is always available to provide around-the-clock care, starting with prehospital notification by the Tennessee regional EMS systems and our own LIFESTAR aeromedical service. This level of care continues with the constant availability of a neuroendovascular interventional service and the only Level I Trauma Center in East Tennessee. Our multidisciplinary team evaluates and treats the most complex cases of stroke. Designated by the American Heart Association/American Stroke Association and The Joint Commission as exceeding standards of care for stroke patients, our Comprehensive Stroke Center has joined an elite group of providers focused on complex stroke care.

This new and advanced level of certification, launched in 2012, recognizes the significant resources in staff and training that Comprehensive Stroke Centers must have to treat complex stroke and other neurological disorders.

The University of Tennessee Medical Center's Brain and Spine Institute is the largest and most experienced program in East Tennessee dedicated to caring for stroke patients with neurological and neurosurgical problems.

From the trained regional EMS providers who quickly recognize stroke symptoms to the expert emergency room physicians and nurses who start the process of identification to the use of sophisticated imaging capabilities and the continuous availability of specialized treatments, our stroke team is a regional leader in providing advanced care to patients with stroke.

At the region's only academic medical center, in partnership with UT Graduate School of Medicine, physicians and staff engage in research aimed at improving care for stroke patients.

"UT Medical Center is thoroughly committed to providing our patients with the highest-quality stroke care based on current scientific research to ensure continuous improvement in care," says Ann Giffin, vice president of the Brain and Spine Institute.



iving Well with Chronic Conditions and Living
Well with Diabetes (Stanford Based-Chronic Disease
Self-Management Program)

Three full-time staff members from the Network Development department completed certification offered by UT Extension to teach Stanford's evidence based programs: Living Well With Chronic Conditions and Take Charge of Your Diabetes. In 2013 our staff taught both classes in Oliver Springs, TN for residents residing in their government housing program. A total of 30 people participated in the classes. One of our participants overcame depression, began visiting her physician regularly to manage her diabetes, and even lost weight. Her grandson took the class with her. As a result of the nutrition education component, he also achieved a healthy weight loss. Oliver Springs is located in Roane County, one of the 21 county service area of The University of Tennessee Medical Center. The rate of adult diabetes in Roane County is 13%, which is 2% higher than the state of Tennessee average.

Goal 2013: Continue offering Living Well with Chronic Conditions in the communities identified to be at greatest need. We will collaborate with the University of Tennessee Extension and county health departments to identify areas in need and provide instructors for these workshops.

Outcome 2013: Identified Roane County as a county of need based on county diabetes rates. Collaborated with The UT Extension to host both the Chronic Disease and the Diabetes programs for the Oliver Springs Housing Authority. There were a total of 17 participants for the Chronic Disease program and 15 participants for the Diabetes program.

Goal for 2014: Extend certification to one additional staff person for the Living Well with Chronic Conditions program. Collaborate with the Knox County Health Department and become active members of the Living Well Advisory Council. Identify 2 new areas to teach both programs, and offer 1 program at our hospital.

Intervention/Strategy for Achieving Goal: Meet with local physician practices to explain the structure of the program and provide materials to give their patients.

Use internal and external forms of social media to market upcoming classes.

Chronic Disease Prevention and Maintenance



Take Charge of Your Diabetes program participants celebrate successful completion of the program with instructors Shannon Reynolds (front row, left), Paige Huggler (front row, second from left), and Jane Kelly (front row, right).

