This is a very exciting year for the Kettering Health Network Cancer Program. Many of this year’s efforts have been in anticipation of the opening of our new cancer center, located in the Pavilion on the Kettering Medical Center campus. From the very inception of this project, we have consulted the experts: ordinary people who have faced the extraordinary challenge of a cancer diagnosis. Through the Patient Advisory Council, these patients provided input at virtually every phase of the construction process regarding how the center would look, feel, and work. We are extraordinarily grateful to our Patient Advisory Council members for the time and passion they have shared with us. The center stands as a testimony to their efforts, and you will read more about their impact later in this report.

Our main goal remains to continually improve the care our patients receive and deliver it in the manner in which our patients desire. Not only do they receive personalized care that promotes healing for the mind, body, and spirit, but with Kettering Cancer Care our patients can be confident that they are receiving treatments that meet or exceed national guidelines. The foremost accrediting organization for cancer programs in the United States, the Commission on Cancer of the American College of Surgeons, has affirmed in years past that patients receive excellent care through Kettering Health Network. Our September 2016 Commission on Cancer survey once again confirmed the quality of our program by resulting in a 3 year with Commendation Accreditation Award.

As we continue consolidation of our cancer care team under the name Kettering Cancer Care and in preparation for our move to the cancer center, our practices have all transitioned to an electronic medical record system that permits quick access to records at other hospitals and practices. Its Oncology Module simplifies the process to order proven and standardized treatment plans, and with dedicated oncology pharmacists, we can assure our patients they are receiving their treatments in the best and safest way possible. You will be able to read more about this system in this report.

Cancer survey once again confirmed the quality of our program by resulting in a 3 year with Commendation Accreditation Award.

We are also delighted to introduce to you Meghan Lundy, LCGC. She has joined our team as our new medical geneticist. One of the major breakthroughs in understanding cancer has been the finding of genetic mutations that may drive the occurrence and growth of cancers. Many of you know families with several members who have had a cancer diagnosis, and we will be able to help our patients learn if there is an inheritable form of cancer in their family and how best to screen for it. You may read more about that in Meghan’s report.

Designing and building our cancer center has given us an opportunity to review how we care for our patients and how we can continue to excel in patient care. As we continue adding even more services to make each person’s cancer journey more comfortable and successful, we are proud of our team of physicians, nurses, social workers, dieticians, therapists, navigators, clinical trial nurses, and supportive care professionals who help our patients and their families. Each patient’s cancer journey is different, which is why we are dedicated to providing comprehensive care that ranges from preventative screenings and early detection to state-of-the-art treatment, equipment, and support services. Our team is here for you.
Nothing ever rose to touch the skies unless someone dreamed that it should, someone believed that it could, and someone willed that it must.”

– Charles F. Kettering

The network’s new, comprehensive cancer center offers complete care to patients in a nurturing environment with dedicated patient-centric amenities and specialized treatments to fight cancer. Designed with input from patients, employees, and physicians, the center serves as a single touch point for patients, providing them with a wide range of services, including radiation oncology, medical oncology, breast imaging diagnostic center, and the area’s largest private infusion center.

To learn more about the project, visit ketteringhealth.org/cancercenter
2016 Kettering Health Network Cancer Committee

Cancer Liaison Physician & Surgeon
Rebecca Tuttle, MD
James Ouettele, DO

Cancer Committee Chair & Medical Oncologist
Stuart Meir, MD
Alejandro Calvo, MD

Cancer Conference Coordinator
Marlin Jacobs, MD
Michele Spierer, MD

Cancer Program Administrator
Elizabeth Garrison, MHA
Terri VannZant, RN

Cancer Registry Quality Coordinator
Elizabeth Garrison, MHA
Deborah Hamilton, BS, RHIT, CTR

Clinical Research Representative
Mary Combsky, PhD
Judy Bar, BSN, RN, OCN®, CBCN®

Community Outreach Coordinator
Karen Polfer, MSN, RN, OCN®, CBCTM, CN-BN
Karen Stormer, MSN, RN, OCN®

Psychosocial Services Coordinator & Social Worker
Deb Baucells, MS, LSW
Martha Haynes, BS, LSN, ACM

Quality Improvement Coordinator & Quality Management Representative
Jeffrey Weinle, MD
Richard Greep, MD

Diagnostic Radiologist
Ana Keppeke, MD
Virginia Wolterman MD

Pathologist
Yoavit Dovation, MD
Geoffrey Hahn, MD

Physician Member of Palliative Care Team
Chirag Patel, MD
Anna Zinkovech, MD

Palliative Care Team Member
Jacqueline Mathews, MS, RN, AOCN®, ACHPN, CNS-BC
Karla Shearer, MS, RN, NP

Radiation Oncologist
E. Ronald Hale, MD, MPH
Leslie Keizer, IV, MD

Certified Tumor Registrar
Lori Noy, RHT, CTR
Kim Miles, BS, CTR

Corporate Administrator
Terry Burns
Mark Rita

Hospice Nurse or Administrator
Diane Caso, DO
Rebecca Collins, BSN, RN, OCN®, CHPN

Oncology Nurse Leader
Renee Norrod, MSN, RN, AOCN®, CNS
Sharoon Wingham, MSN, RN, OCN®, CBCN, CN-BN

Oncology Nurse from Ambulatory Setting
Julie Strohminger, RN, OCN®
Tricia Tobe, RN, OCN®

Pharmacist
Rachel Henderson, PharmD
Amy Vast, RPh

Registered Dietitian
Kenny Klauser, MS, RD, LD, CNS
Terry Klein, MFA, RD, CD, CNS

Rehabilitation Representative
Michelle Alexander, MA, CCC-SLP
Jessica Foster

Genetics Professional
Meghan Lundy, MS, LCCG

Pastoral Care Representative
Larry Kolotkin, MD

American Cancer Society Staff Representative
Deborah Siesse

Additional Members
Robert Burrell, MD
Krisa Bensonman, BSN, RN, OCN®
Sue Brake, RN (IM/EPN-C, Mary Cockerham
Beth Cote, RN
Jane Combs, RN
Ambalalakshmi D’Soupe, MD
Kay Finch, BSN, LSW
Mark Florio
Laura Frank
Michael Gabrilovich, MD
Matthew Garrett, MD
Greg Gordon, DO
Max Grady
Linda Grizzel, CTR
Michael Guy, MD
Ehab Hussein, MD
Priya Jain, MD
Poppy Kent, RHT, CTR

Evan Lang, DO
Amanda Leibenthal, DO
Joseph Lovelock, DO
Linda McCull, RPh
Sheila Manion, MD
Shelby Martin-Kelly, CTR
Janice Morash, RHT, CTR
Manisha Nanda, DO
Herbert Newton, MD
Jennifer Ols, RN
Richard Peinhong, MD
Caroline Peterson, DO
Casie Poe, BSN, LSW
Heather Poiucli, MD
Bonnie Quinonez, MSA-HCN, RHT, CTR
Melvin Reed, BSN, RN, CCRN
Thomas Reid, MD
Terry Rosellmond-Moore, BSN, RN, AOCN, NCA-BC, CDE
Malek Sada, MD
Hernan Shah, MD
Debbie Stahlheber, RN
Marish Shefi, MD
Nicey Staton, RN
Roger Stant, TN
Tiffany Thompson, RN, OCN®
Kathy Wagoner, RT (R), BSN
Kathy Wagoner, RT (R), BSN
Roxane Wexhall, DO
Michelle Wesney
David Zanazanian

2016 Kettering Health Network Cancer Committee

Sycamore Medical Center
Fort Hamilton Hospital
Soin Medical Center
Southview Medical Center
Greene Memorial Hospital
Grandview Medical Center
Kettering Medical Center

Patient family engagement success
Kettering Cancer Care utilizes patients as their guide

“We love using our voice to help all who are faced with a cancer diagnosis.”
- Cancer patient, Patient Advisory Council member

When Kettering Health Network set out to build a 120,000-square-foot, five-story cancer center, a facility focused on the treatment and diagnosis of cancer, we purposed ourselves to do things differently. From the very beginning of discussions for a new cancer center, network leaders and clinicians were determined to expand their patient-centric care by establishing the Patient Advisory Council. We began with nominations by clinical staff of former patients and family members. The members are from varied backgrounds and have experiences with a wide variety of cancer types, with ages ranging between 35 and 85. Some have even been patients at other healthcare facilities. The Patient Advisory Council played an important role in the design of the new center. Through each member’s input, the new facility is both patient-centered and patient-designed. Clinicians and network leaders are also represented on the Patient Advisory Council.

From our first monthly meeting in December 2014, the Patient Advisory Council has been deeply involved in the Cancer Center. The Patient Advisory Council reviews and advises on services, design, equipment, operations, and marketing.

One particularly telling example of the power of the Patient Advisory Council deserves sharing. As the Patient Advisory Council and leaders planned the services that would be offered, one council member talked about light massage therapy that was available to her during her chemotherapy. The Patient Advisory Council agreed that this is an important service and that it should be offered immediately, rather than waiting until the new center was ready. The senior executives and clinicians agreed, and her suggestion was implemented right away.

Patient family engagement success
Kettering Cancer Care utilizes patients as their guide

Patient Advisory Council meeting with Oncology Service Line Leadership

Patient Advisory Council advises the builders at every step of the way

Patient Advisory Council member testing chemo therapy infusion chair

Patient Advisory Council reviewing blueprints with Oncology Service Line Leadership

Patient Advisory Council member testing chemo therapy infusion chair

The Patient Advisory Council is not a temporary council that will be dissolved after the new center is completed. They are a guiding force in all the decisions made both for the new center and within many existing operations, and they will continue to be so. They are part of the Kettering Health Network family, seemingly tireless in their contribution, their counsel, and their commitment. The clinicians, staff, and leaders of Kettering Cancer Care are deeply grateful for the invaluable role each Patient Advisory Council member has played in the development of this center. With former patients and family members helping to make decisions that impact patient care, Kettering Health Network has been able to engage the community in developing comprehensive care practices that truly represent the future of cancer care.

“‘The experience is energizing for advisory council members. I think it’s awesome that they put this committee together. They really want to know what we think.’”
- Cancer patient, Patient Advisory Council member
Per "Cancer Registry Management Principles and Practices," a cancer registry is a system designed to collect information about the occurrence of cancer, the types of cancers that occur and their locations within the body, the extent of the cancer at the time of diagnosis, and the kinds of treatments that patients receive. In the United States, hospital-based (or institution-based) registries are the foundation of cancer surveillance. Per Mahul B. Amin, MD, FCAP, Editor-in-Chief, the AJCC Cancer Staging Manual 8th Edition will be dedicated to cancer registrars to recognize their education and unique commitment to the recording and maintenance of data that are vital for the care of the cancer patient.

**Facilities Contributing to the Network’s Cancer Registry Database:**
- Kettering Medical Center
- Grandview Medical Center
- Sycamore Medical Center
- Southview Medical Center
- Fort Hamilton Hospital
- Greene Memorial Hospital
- Soin Medical Center

**BY THE NUMBERS**

**Total 2005-2015 analytic cases** currently maintained in the cancer registry database = **25,972**

**2015 annual data by gender**
- Male = **10,683**
- Female = **15,289**

**Total 2015 analytic cases reportable to the NCI** = **2,480**

**2015 primary sites most collected by Kettering Health Network cancer registry and reported to the National Cancer Data Base**:
- Breast = 583
- Lung = 413
- Prostate = 154
- Colon = 121
- Corpus uteri = 99

**2015 additional cases reportable to the Ohio Department of Health only** = **213**

**Number of cases due for Commission on Cancer-required followup during 2015** = **13,350**

**2015 Cancer Patient Demographics**
- County of Diagnosis

**Top Five Cancer Sites**

**2015 network data by gender**

**Primary Site** | **Case Count** | **Principals**
--- | --- | ---
Lung | 212 | **Breast**
Prostate | 169 | Breast
Bladder | 97 | Breast
Colon | 66 | Breast
Hematopoietic | 61 | Breast

**All other sites**: 469

**2015 Cancer Patient Demographics**

**2015 Cases reportable to the National Cancer Data Base**:
- Breast = 598
- Lung = 218
- Corpus uteri = 104
- Thyroid = 75
- Colon = 63

**2015 other sites**: 506

*These top 5 sites remained constant from 2014 with the exception of a change within the male sites in which the skin primary case count replaced hematopoietics in frequency.

**Per the Centers for Disease Control, June 16, 2016, the three most common cancers among men are prostate cancer, lung cancer, and colorectal cancer.

***Per the Centers for Disease Control, June 16, 2016, the three most common cancers among women are breast cancer, lung cancer, and colorectal cancer.

**Cancer Conferences**

Per the Commission on Cancer’s Cancer Program Standards, “Cancer conferences improve the care of patients with cancer by providing multidisciplinary treatment planning and contributing to physician and allied medical staff education.” As an approved Commission on Cancer Integrated Network Cancer Program, Kettering Health Network cancer conferences include discussion of stage and consideration of national treatment guidelines, prognostic indicators, and clinical trials.

**Cancer conferences were held during 2015**

- **179** Case presentations

**General Cancer Conferences:**
- Kettering Medical Center, Grandview Medical Center, Fort Hamilton Hospital, Greene Memorial Hospital, Soin Medical Center

**Site Specific Conferences:**
- Breast, Head & Neck, Thyroid, Neuro-Oncology, Thoracic, Gynecology
## 2015 Caseload

### Primary Site

| Site                        | Class of Case | Status | M  | F | Sex | Total (% | M  | F | Sex | Total (% | M  | F | Sex | Total (% | M  | F | Sex | Total (% | M  | F | Sex | Total (% | M  | F | Sex | Total (%) |
|-----------------------------|---------------|--------|----|---|-----|-----------|----|---|-----|-----------|----|---|-----|-----------|----|---|-----|-----------|----|---|-----|-----------|----|---|-----|-----------|----|---|-----|-----------|
| Base of Tongue              | 9 (0.4%)      |        | 2  | 0 |     | 7 (0.3%)  | 2  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Other Tongue                | 11 (0.5%)     |        | 9  | 2 |     | 11 (0.5%) | 9  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Floor of Mouth              | 2 (0.1%)      |        | 2  | 0 |     | 1 (0.0%)  | 2  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Palate                      | 6 (0.2%)      |        | 4  | 2 |     | 6 (0.3%)  | 4  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Other Mouth                 | 4 (0.2%)      |        | 2  | 2 |     | 4 (0.2%)  | 2  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Parotid Gland               | 4 (0.2%)      |        | 4  | 3 |     | 7 (0.4%)  | 4  | 3 |     | 0           | 1  | 1 |     | 1           | 1  | 1 |     | 0.0%       |
| Tonsil                      | 18 (0.9%)     |        | 11 | 7 |     | 18 (1.0%) | 11 | 7 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Oropharynx                  | 9 (0.4%)      |        | 7  | 2 |     | 9 (0.5%)  | 7  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Nasopharynx                 | 1 (0.0%)      |        | 1  | 0 |     | 1 (0.0%)  | 1  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Hypopharynx                 | 2 (0.1%)      |        | 2  | 0 |     | 2 (0.1%)  | 2  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Other Lip, Oral Cavity & Pharynx | 1 (0.0%) |        | 1  | 0 |     | 1 (0.0%)  | 1  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Esophagus                   | 10 (0.5%)     |        | 8  | 2 |     | 10 (0.5%) | 8  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Stomach                     | 27 (0.1%)     |        | 11 | 16|     | 27 (0.5%) | 11 | 16|     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Small Intestine             | 18 (0.9%)     |        | 11 | 7 |     | 18 (1.0%) | 11 | 7 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Colon                       | 12 (0.6%)     |        | 6  | 6 |     | 12 (0.6%) | 6  | 6 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Rectum                      | 49 (2.4%)     |        | 25 | 24|     | 49 (2.6%) | 25 | 24|     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Anus & Anal Canal           | 8 (0.4%)      |        | 2  | 6 |     | 8 (0.4%)  | 2  | 6 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Liver & Intrahepatic Bile Duct | 16 (0.8%) |        | 12 | 4|     | 16 (0.8%) | 12 | 4|     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Gallbladder                 | 7 (0.3%)      |        | 1  | 6 |     | 7 (0.3%)  | 1  | 6 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Other Parts of Biliary Tract | 14 (0.7%) |        | 8  | 6|     | 14 (0.7%) | 8  | 6|     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Pancreas                    | 7 (0.3%)      |        | 3  | 4 |     | 7 (0.3%)  | 3  | 4 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Other Digestive Organs      | 8 (0.4%)      |        | 3  | 5 |     | 8 (0.4%)  | 3  | 5 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Nasal Cavity & Middle Ear   | 1 (0.0%)      |        | 1  | 0 |     | 1 (0.0%)  | 1  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Accessory Sinuses           | 1 (0.0%)      |        | 1  | 0 |     | 1 (0.0%)  | 1  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Larynx                      | 20 (1.0%)     |        | 18 | 2 |     | 20 (1.0%) | 18 | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Trachea                     | 1 (0.0%)      |        | 1  | 0 |     | 1 (0.0%)  | 1  | 0 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Bronchus & Lung             | 43 (2.2%)     |        | 20 | 23|     | 43 (2.2%) | 20 | 23|     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Thyroid                     | 11 (0.5%)     |        | 1  | 2 |     | 11 (0.5%) | 1  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Heart, Mediastum & Pleura   | 4 (0.2%)      |        | 2  | 2 |     | 4 (0.2%)  | 2  | 2 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |
| Bones & Cartilage of Other  | 6 (0.2%)      |        | 2  | 4 |     | 6 (0.3%)  | 2  | 4 |     | 0           | 0  | 0 |     | 0           | 0  | 0 |     | 0.0%       |

### Exclusions:
- Not Male and Not Female: Data from Kittelson Medical Center, Grandview Medical Center, Portland Health, Greens Memorial Hospital, Sum Medical Center
Quality Improvement—Implementation of Beacon

PHARMACY’S ROLE

Linda McCall, RPh

IMPROVEMENT OF BEACON

The continuum of care has improved as clinical staff is able to access pertinent patient information as part of a single system.

Oncology-specific electronic medical records (EMR) designed to meet the needs of cancer care have helped improve functionality, patient care, and safety in this niche specialty. Kettering Health Network has recently implemented Epic’s Beacon module, which is designed specifically for use in oncology practice.

Through the implementation of Beacon, we were able to streamline three oncology practices, each with a unique workflow, into “One Best Practice” for cancer care in the network. The process of building the protocol database occurred in a record-breaking 8.5-month timeframe. The Oncology Protocol Approval Committee (OPAC), a multidisciplinary team including physicians, pharmacists, and nurses was created for this purpose, as well as ultimately having the responsibility to make oncology-specific clinical decisions for the network. Each week 15 to 20 regimens were prepared for approval at the OPAC meeting, which allowed for a streamlined protocol approval process. Oncology pharmacists utilized clinical experience as well as physician input to determine protocols essential for “go live”. They collaborated with Kettering Health Network’s Beacon Pharmacist to build and review protocols, derived from the National Comprehensive Cancer Network (NCCN) templates, within the system. In addition, a significant number of protocols not contained within the NCCN templates were researched and validated by pharmacists, using evidence-based medicine. Additional details such as timing, sequencing and IV compatibility for all protocols were supplied by pharmacy prior to the final OPAC review. Input provided by physicians from all practices helped create standardized default schedules and doses within protocols, allowing for a consistent ordering process. Physicians are also easily able to document patient-specific deviations from standardized orders to meet individual patient needs, while maintaining communication with other members of the care team.

The implementation of a secure electronic system assisted in elimination of paper orders, reducing the inherent risks of a paper system. Beacon includes the new electronic “Dispense Prep” and “Dispense Check” functions, which provide validation that the correct medication and diluent are used for each compound. This new functionality simultaneously logs the specific products used to produce all compounds by NDC number, which is a requirement of the strict enforcement in the 340b program. Prior to Beacon, all Epic orders required manual input and verification of NDC numbers. The system also provides an avenue for enhanced workflow processes, including dual verification of chemotherapy orders, which is essential to ensure quality and safety. This extends to sites with only one pharmacist, as the system allows a pharmacist from one site to view notes/from a remote location. Oncology pharmacists are able to more easily and safely cover different practices as processes are more standardized, and collaboration can occur much more easily as a result.

The Beacon system provides access to relevant clinical information, enabling a team approach to care and further collaboration among disciplines. Essentially, the continuum of care has improved as clinical staff is able to access pertinent patient information as part of this development of a collaborative, team-based practice helps to achieve the main goal: providing quality care to our patients.

In May 2016, the oncology service line of Kettering Health Network implemented the Epic Beacon Oncology module as part of its network electronic medical record. All Kettering Health Network oncologists went through Epic Beacon training and the module is used in both the inpatient and ambulatory environment. This implementation promotes Kettering Health Networks philosophy of “One Best Practice” by bringing the oncology service line into the same EMR platform used by the rest of the network.

The integration of oncology clinical data with the rest of the patient’s chart allows for free flow of data to and from the oncologists with the other clinical service lines. Now all oncology information including treatment plans and chemotherapy protocols are visible to all end users across the network. In turn, clinical data from other service lines including emergency, primary care, hospitalists and other sub specialists are easily available to oncologists in their charting workflow, and oncologist no longer have to switch applications to access imaging and lab results.

The Epic Beacon Oncology module will continue to be optimized by Kettering Health Network over the coming months to further improve functionality and through “One Best Practice” improve clinical quality, patient safety satisfaction, and clinical integration.
Genetic Testing and Its Impact on Individuals and Families

By Meghan Lundy, LGCC

During the State of the Union Address this year, Vice President Joe Biden introduced his Cancer Moonshot project. This project is designed to “accelerate the prevention, diagnosis, treatment, and—ultimately—the curing of cancer” (whitehouse.gov). Cancer genetic testing is anticipated to play a large role in this initiative in several ways. Genetic testing for inherited cancer predisposition syndromes as well as tumor testing has become more and more common in the last several years; however, this initiative sets the stage for it to become an integral part of cancer care for all patients.

Genetic testing for inherited cancer predisposition syndromes is also called germline genetic testing. Germline refers to the genetic instructions that were inherited from our parents. They are present in every cell of our body and do not change at any point during the lifetime. Changes, or mutations, in these genes can lead to a higher risk of cancer that is passed through the family. These mutations do not mean that a person will develop cancer, only that the risks are increased. Knowing about an inherited cancer predisposition syndrome can affect how we prevent, diagnosis, and treat cancer.

Genetic testing can also be done on tumor cells, which is called somatic testing. In this context, somatic refers to the differences in genetic instructions that are only in the tumor cells but are not in the germline. Since these types of changes are only seen in the tumor cell, they can provide ways to detect a tumor and provide specific targets for treatment.

PREVENTION

Health care is moving towards preventing diseases rather than simply treating them. Prevention of cancer is a primary concern of many people. Everyone can reduce their risk for cancer by not smoking, limiting alcohol consumption, eating a healthy diet, maintaining a healthy body weight, and exercising. However, individuals with a germline mutation that causes an inherited predisposition to cancer often have other options. Some medications can reduce the risk of cancer; however, these medications have side effects so they are only recommended for individuals with a genetic predisposition syndrome. These individuals may also consider surgery to reduce the risk of cancer as much as possible.

George was a 40-year-old man when his primary care physician noted his family history of colon cancer in his mother and uncle. He was referred for genetic counseling and testing was performed. George was found to have a *MSH2* mutation, which causes Lynch syndrome. He underwent a colonoscopy and was found to have three colon polyps, one of which had pre-cancerous cells. Genetic testing allowed him to prevent polyps from developing into a colon cancer. Future colonoscopies will help reduce the risk of colon cancer. He was also put on a daily low dose aspirin to help slow development of colon polyps and cancer.

DIAGNOSIS

Although no one wants to develop cancer, diagnosis at an early stage is a blessing. The earlier a cancer is detected, the more likely that cancer is to be cured. Researchers are always working to improve our current cancer screening methodologies and to discover new genes. Those who have a high risk of cancer due to a genetic syndrome are recommended to begin screening at a younger age and have additional screening modalities available to them. There are also new updates in somatic genetic testing being used to detect cancer. Over the last few years there have been news reports of genetic testing on pregnant women detecting cancer. Laboratories are trying to harness this same technology to be able to detect a cancer by a blood draw using circulating cell-free tumor DNA in a way that is accurate. There is not currently an accurate blood test that is able to detect cancer; however, it should become available in the next few years.

Rick was 30 years old when he was diagnosed with a rare type of tumor called a paraganglioma. These rarely become metastatic but his already had when it was found. Genetic testing detected a mutation in *SDHB*, a gene that is known to be associated with a high risk of metastatic paragangliomas. People who are known to have these kinds of genetic mutations should start screening for paragangliomas at age 10. Genetic testing of his children, siblings, nieces, and nephews will help ensure that their story is different.

TREATMENT

Personalized medicine is becoming more common in all fields and this includes oncology. For years now, oncologists have been treating cancers based on different markers seen in an individual’s tumor rather than just where it initially started. We can now use somatic genetic testing of the tumor to determine someone’s likelihood of a recurrence as well as determine which chemotherapies may be most effective.

Somatic genetic testing has rapidly developed within the last few years to the point where researchers are learning about many more genetic changes that occur in cancer. These changes provide new targets to research and provide truly personalized medicine. Genetic testing results must be viewed together to provide personalized medicine.

The Cancer Moonshot project aims to make significant improvements for cancer care in the coming years. As personalized medicine moves to the forefront, it is important that providers and patients understand how family history and genetic testing affects how we prevent, diagnose, and treat cancer.

• Three or more close relatives on the same side of the family (1st, 2nd, and 3rd degree relatives: such as parents, siblings, children, grandparents, aunts and uncles, great-grandparents, and first cousins) with the same or similar type of cancer

• Certain types of cancer that are sometimes linked to a known gene mutation such as a combination of breast and ovarian or colon and uterine

• Cancer diagnosed under the age of 50 years in the patient or a close relative

• Close relatives with rare cancers, such as male breast cancer

• More than one primary cancer (more than one type of cancers in a single person)

• A known genetic mutation in a family member who has had genetic testing

Patients with one of the following may benefit from a more in-depth genetics assessment:

**2016 CANCER ANNUAL REPORT**

16

17
Providing Cancer Services and Resources

From prevention and early detection to treatment and rehabilitation, Kettering Cancer Care has the resources and expertise to provide you and your loved ones with excellent cancer care.

THE CANCER TEAM
Our cancer program provides quality cancer care close to home with an expert interdisciplinary team who works to provide comprehensive care. When you or your family member faces a cancer diagnosis, finding the right care can seem overwhelming. Kettering Cancer Care’s dedicated oncology professionals work with you and your physician to plan the best care for you, both in and out of the hospital. Our goal is to provide high-quality care that is totally focused on you and your needs.

PREVENTION, EARLY DETECTION, AND AWARENESS
Kettering Health Network is pleased to offer a variety of free educational cancer presentations and cancer awareness/screening programs. For more information about cancer screening dates and locations, please call Community Outreach at (937) 558-3988 or 1-800-888-8362.

NURSING CARE
The nurses at Kettering Health Network facilities provide oncology inpatient and outpatient care, including medical-surgical care, chemotherapy & biotherapy administration, and symptom management, according to Oncology Nursing Society national guidelines. Many of the nurses who care for patients and families who are experiencing a cancer diagnosis are nationally certified in medical/surgical nursing, geriatric nursing (the care of older adults), hospice-palliative care nursing, and oncology nursing (the care of people with cancer).

NAVIGATORS
Certified oncology nurses and social workers assist you to overcome barriers to optimal cancer care, keeping your cancer care on-time so you can achieve the best possible outcome. Our nurses are here to assist you in understanding your cancer and cancer treatments as well as addressing financial concerns, transportation, and other support needs throughout the entire cancer journey. Call Kettering Cancer Care at 855-500-CURE (2873).

SOCIAL SERVICES
Kettering Cancer Care Social Workers provide support and other services that can reduce stress for patients and loved ones through the entire cancer journey. Our social workers can help assist patients and families in finding affordable medical care and prescription drug coverage, transportation, and home health care. They can also help patients understand the process of applying for Medicaid, social security disability benefits, and link patients to programs that offer financial assistance.

Our social workers can help you cope with the cancer diagnosis and the many emotions that you may be experiencing. Kettering Cancer Care social workers can assist patients in finding support groups, education programs, and other resources in the community. For outpatient oncology social services, call Kettering Cancer Care at 855-500-CURE (2873).

REHABILITATION MEDICINE
Kettering Health Network offers high-quality rehabilitation services including specialized care for our oncology patients. Our outstanding team of rehabilitation professionals is here to assist you. The goal of rehabilitation is to improve quality of life, increase daily functioning and independence as well as to decrease pain.

Our services include: Physical and Occupational Therapy, Speech-Language Pathology, Amputee Therapy, Lymphedema Therapy, Balance Therapy, Voice Therapy, Vision Therapy, Pelvic Floor Therapy, and Swallowing Therapy.

Kettering Health Network offers rehabilitation services at numerous locations in the community. For more information on specific locations of services please contact: Kettering and Sycamore medical centers: (937) 395-8882; Grandview and Southside medical centers: (937) 723-3238; Greene Memorial Hospital and Soin Medical Center: (937) 352-2300;Fort Hamilton Hospital (937) 867-2473.

NUTRITION SERVICES
Nutrition services are essential to comprehensive cancer care and rehabilitation. Kettering Cancer Care strives to provide safe, effective nutrition care across the cancer continuum, from prevention through treatment and into survivorship, to promote your best quality of life. Comprehensive nutritional assessment, counseling, and education can be provided by our team of oncology-certified registered dietitians. Call Kettering Cancer Care at 855-500-CURE (2873).

CLINICAL TRIALS
Kettering Health Network’s Innovation Center provides access to unique cancer studies available through industry partners as well as nationally sponsored clinical trials. Kettering Health Network collaborates with the Dayton Clinical Oncology Program (DCOP) to offer National Cancer Institute trials and with the University of Cincinnati to provide Gynecology Oncology Group (GOG) trials at the Women’s Cancer Center, in addition to other cancer clinical trials.

People experiencing a cancer diagnosis have the opportunity to participate in one of over 100 research studies, ranging from Phase II to Phase IV, for nearly every type of cancer. An experienced research nurse will assist your physician to determine if a cancer clinical trial is right for you and will follow you from enrollment through completion. It is rare to find such a comprehensive array of cancer clinical trials and Kettering Health Network is pleased to offer this cutting-edge research to patients in the greater Dayton area. Please contact the Innovation Center for more information about oncology clinical trials at (937) 395-8390.

PALLIATIVE CARE
Palliative care is an integral part of comprehensive cancer care. The goal of palliative care is to provide relief of suffering, in all of its dimensions, and to support the best possible quality of life for the patient and his or her family. Palliative care is offered simultaneously with all other medical therapies, working with the patient’s medical team to support the primary plan of care. Palliative care emphasizes the use of evidenced-based tools for symptom management; aligns medically appropriate goal setting among patients, families, and health care providers; and integrates this plan with clear communication among all members of the health care team.

Major reasons for referral to palliative care service include medical decision-making, goals of care, and symptom management. Kettering Health Network is pleased to offer palliative care consultation by physician referral to Innovative Care Solutions (937) 334-4208 and Carebridge (513) 528-4905.

SPIRITUAL CARE
Hospital visits can be a time of stress, anxiety, grief, and fear. Our mission is to extend compassion and demonstrate the healing love of God to all of our patients and their loved ones. At Kettering Health Network we are dedicated to healing work not only with the best that medicine can provide, but also with compassion and care for your spiritual and emotional needs. Our chaplains understand the importance of prayer and faith as a part of healing. By providing spiritual support as a complement to medical treatment, Kettering Health Network’s chaplains are able to make us a leader in healing the whole person.

Our chaplains are ready to assist you in any way we can. Kettering Health Network chaplains are trained to offer emotional and spiritual support to persons of all faiths, from pre-surgery and outpatient testing through the entire hospital experience.

The on-call chaplain may be reached by dialing ‘0’ for the hospital operator or by calling the Spiritual Care Service Department:

Kettering Medical Center
Larry Koutub  937-395-8640
Sycamore Medical Center
Ron Concha  937-384-4878
Southview Medical Center
Darryl Blishnich 937-402-6387
Grandview Medical Center
Senpi Silva 937-723-3878
Soile Medical Center
Mariya Martin 937-702-4021
Greene Memorial Hospital
Ron Swiger 937-352-2693
Fort Hamilton Hospital
Larry Davis 937-567-2033
Kettering Behavior Medicine Center
Neslor Bruno 937-395-5001

For more information on specific locations of services please contact: Kettering and Sycamore medical centers: (937) 395-8882; Grandview and Southside medical centers: (937) 723-3238; Greene Memorial Hospital and Soin Medical Center: (937) 352-2300;Fort Hamilton Hospital (937) 867-2473.

The on-call chaplain may be reached by dialing ‘0’ for the hospital operator or by calling the Spiritual Care Service Department:

Kettering Medical Center
Larry Koutub 937-395-8640
Sycamore Medical Center
Ron Concha 937-384-4878
Southview Medical Center
Darryl Blishnich 937-402-6387
Grandview Medical Center
Senpi Silva 937-723-3878
Soile Medical Center
Mariya Martin 937-702-4021
Greene Memorial Hospital
Ron Swiger 937-352-2693
Fort Hamilton Hospital
Larry Davis 937-567-2033
Kettering Behavior Medicine Center
Neslor Bruno 937-395-5001
CANCER SUPPORT GROUP AT FORT HAMILTON HOSPITAL
A cancer support group for people coping with any type of cancer. Meets in the Gebhart Center for Cancer Care. Call Fort Hamilton Hospital at (513) 867-2315.

CANCER SUPPORT GROUP/CAREGIVER SUPPORT GROUP
For people coping with any type of cancer, their families, and friends. Includes those newly diagnosed with cancer as well as long-term survivors with any type of cancer. Guest speakers present special topics, followed by small discussion groups. Call Kettering Cancer Care at 855-500-CURE (2873).

CANCER SUPPORT GROUP AT GREENE MEMORIAL HOSPITAL
A cancer support group for people coping with any type of cancer. Meets in the Ruth G. McMillan Cancer Center. Call Greene Memorial Hospital at (937) 352-2144.

LEUKEMIA, LYMPHOMA, & MYELOMA FAMILY SUPPORT GROUP
A Leukemia & Lymphoma Society Support Group for adult patients and survivors with leukemia, lymphoma, Hodgkin’s disease, multiple myeloma, and other blood-related diseases. Families and friends are welcome. Call Kettering Cancer Care at 855-500-CURE (2873) or the Leukemia & Lymphoma Society at (513) 698-2424.

SOUTHWEST OHIO BRAIN TUMOR SUPPORT GROUP
Provides encouragement and support to brain tumor patients (cancer and non-cancer), their families, and friends. Call Kettering Medical Center, (937) 298-3399 extension 55299.

RESOURCES
ACCESS CENTER
Our trained information specialists will help you navigate your journey. If you need an oncologist, a second opinion, or have questions about treatment, we can connect you with the resources you need to make informed decisions. If you feel alone or just need someone to talk to, we can connect you with support groups or a nurse navigator. We are here for you. Call Kettering Cancer Care at 855-500-CURE (2873).

BASIC THERA BAND EXERCISES
Kettering Cancer Care is pleased to partner with the Maple Tree Cancer Alliance to provide free theraband exercise classes just for cancer patients and survivors. Call Kettering Cancer Care at 855-500-CURE (2873).

THE CANCER CLASS
The Cancer Class is for people who are just starting a cancer journey. The class explores common questions about cancer, cancer stage, and treatment options as well as local resources and support. Call Kettering Cancer Care at 855-500-CURE (2873).
CANCER COMPANIONS
Cancer Companions is a Christian support group for those with cancer and their loved ones. The nine-week program utilizes devotionals, videos, group discussion, and prayer led by trained volunteers to support those on the cancer journey. Call Kettering Cancer Care at 855-500-CURE (2873).

CANCER YOGA
Kettering Cancer Care is pleased to partner with the Maple Tree Cancer Alliance to provide free, certified yoga instruction just for cancer patients and survivors. Call Kettering Cancer Care at 855-500-CURE (2873).

THE CHEMO CLASS
The Chemo Class is for people who are receiving or will soon begin chemotherapy. The class explores common side effects and symptoms as well as caring for yourself during active treatment. Call Kettering Cancer Care at 855-500-CURE (2873).

CINDY WILDE VOGEL MEMORIAL LIBRARY
The Cindy Wilde Vogel Memorial Library is located at Kettering Breast Evaluation Center, 580 Lincoln Park, Suite 200. The library offers information on women’s health. Call Kettering Breast Evaluation Center at (937) 299-0099.

COUNSELING CARE CENTER
The Counseling Care Center provides assistance for people who need a confidential place to talk about frustrations, feelings of loneliness, depression, worry or fear, relationship difficulties, recovery from a traumatic or stressful event, and day-to-day challenges. Licensed Professional Clinical Counselors provide these services. Call Kettering Counseling Care (937) 395-8149.

FROM CANCER PATIENT TO SURVIVOR CLASS
This class is for people who are finishing active treatment and moving to follow-up care or maintenance therapy who may be asking, “what’s next?” This class uses the video “From Cancer Patient to Survivor” by the Institute of Medicine. Call 855-500-CURE (2873) to register.

I CAN COPE
An American Cancer Society program offering a series of classes for people with cancer, their families, and friends. The program helps people meet the challenge of coping with cancer by distinguishing cancer myths from facts. This FREE program provides practical information about cancer, cancer treatments, and offers self-care strategies and resources for those facing cancer. FREE classes are available online at cancer.org, under “Support Programs and Services”.

LOOK GOOD, FEEL BETTER
A FREE American Cancer Society program designed specifically for women experiencing side effects of cancer treatments. The program was developed by the Cosmetic, Toiletry and Fragrance Association; the National Cosmetology Association; and the American Cancer Society to provide information on ways to enhance appearance and take care of your skin, hair, and fingernails during treatment. The program includes instruction by licensed cosmetologists and a demonstration kit. Programs are offered at Dayton area locations every month throughout the year. Call the American Cancer Society toll-free at 800-227-2345 for information and to register.

LOOKING AHEAD NEWSLETTER
A FREE newsletter published for cancer patients, survivors, families and friends, featuring Kettering Cancer Care support groups and services, as well as selected local cancer-related events and other resources. To subscribe to the mail or email newsletter, call Kettering Cancer Care at 855-500-CURE (2873) or visit ketteringhealth.org/cancercare.

MOVING FORWARD HAND-IN-HAND
A support service in which breast cancer survivors offer support and encouragement to individuals newly diagnosed with breast cancer. Call Kettering Cancer Care at 855-500-CURE (2873).

NAVIGATING THE BREAST CANCER JOURNEY
A FREE class for women and men with breast cancer and their support persons. Provides a working knowledge of the language and treatment options so patients can be active participants in their own care and in physical and emotional healing. Call Kettering Cancer Care at 855-500-CURE (2873).

SMOKING CESSATION CLASS
Public Health of Dayton & Montgomery County is partnering with Kettering Health Network to offer free Clinical Best Practice Smoking Cessation. Call Health Outreach at (937) 558-3988 for current dates, times, and complete registration information.

S.O.A.R. (STRENGTH, OPTIMISM, AND RECOVERY)
For women with breast cancer. Focuses on the issues and concerns unique to breast cancer from new diagnosis through long-term survivor. Call Kettering Cancer Care at 855-500-CURE (2873).

WELLSPRINGS OF HOPE
Kettering Cancer Care is pleased to partner with the Maple Tree Cancer Alliance to provide this free program on nutrition, wellness, and prayer at Kettering Medical Center. Call Kettering Cancer Care at 855-500-CURE (2873).

WOMEN’S WELLNESS FUND
An annual Walk for Women’s Wellness is held the first Sunday in May to raise funds for mammograms, breast prostheses, and other assistance for women experiencing cancer who have no insurance. Call Kettering Breast Evaluation Centers at (937) 299-0099 to apply for assistance. To make a donation, call Kettering Medical Center Foundation at (937) 395-8607 or visit kmcfoundation.org.
Be strong and take heart, all you who hope in the LORD. Psalm 31:24 NIV

GIVE THE GIFT OF LIFE
You can help bring innovative care to our communities.
To make a gift, visit ketteringhealth.org/foundation or call:

Fort Hamilton Foundation
Fort Hamilton Hospital
(513) 867-5492

Grandview Foundation
Grandview and Southview medical centers
(937) 723-3358

Greene Medical Foundation
Greene Memorial Hospital and Soin Medical Center
(937) 352-2250

Kettering Medical Center Foundation
Kettering and Sycamore medical centers
(937) 395-8607

YOUR GIFTS SUPPORT
• Equipment and technological advances
• Cancer research
• Encouragement for oncology patients
• Community education and outreach
• Facility expansion

Kettering Cancer Care
Kettering Health Network
1-855-500-CURE
(2873)

Fort Hamilton • Grandview • Greene • Kettering • Soin • Southview • Sycamore