

# The Cancer Program

# 2018 Annual Report

Accredited as a  
Community Hospital  
Cancer Program by  
the  
American College of  
Surgeons Commission  
on Cancer.



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# 2018 Annual Report

**Our 2018 annual report is a summary of 2017 activities and discussions conducted by the Cancer Committee, an overview of cancer services provided by Iredell Health System, and a look at the most frequent cancer sites during 2017.**

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# Cancer Committee Members

**Georgia Olympio, MD**, Pathology, Cancer Committee Co Chairman

**Gayla Lowery, MD**, Radiation Oncology, ACoS COC Liaison Physician

**Benjamin Dunlap, MD**, Family Practice

**Frank Foreman, MD**, Dermatology

**James Foxworthy, MD**, General Surgery

**Ruby Grimm, MD**, Hematology/Oncology

**Jing Li, MD**, Hematology/Oncology

**Teresa Romczick, MD**, Hospice and Palliative Care

**Pam Wesmoreland Sholar, MD**, Hematology/Oncology,

**Rocco Tritico, MD**, Radiology

**Rene Atwell, RN**, Clinical Trials Coordinator

**Amy Baker**, Patient Family Services

**Gayle Beatty, RN, MSN**, Executive Director, Iredell Home Health

**Lois Beckett, RTRM**, Women's Health Center

**Chelsea Coley, MHA, BS, RN-BC**, Director of 4N and Infusion Care Services

**Donna Collins, RN, BSN**, Assistant Vice-President Quality / Clinical Outcomes

**Latasha Ellis, LMSW**, Psychosocial Services

**John Green**, Vice President, Professional Services & Facility Planning

**Debra Hottenrott**, Patient Navigation

**Marsha Hunter, RHIT**, Director, Health Information

**Edward Morgan, AART (N)**, Director, Radiology

**Meagan Kowalski**, Director, of Planning, Marketing and Community Relations

**Heather Leeper, DNP, MBA, RN, LNCC, CPHRM**, Assistant Vice President of Nursing and Patient Outcomes

**Elaine Moore, MS, RD**, Chief Dietician, Dietary

**Amy Baker**, Patient Family Services

**Blair Lindley**, American Cancer Society

**Terri Philips, Director**, Hospice of Iredell County

**Jerry Sintay, RT(T), CMD**, Director of Radiation Oncology

**Amelia Sloan**, American Cancer Society

**Darren Smith, PT, DPT**, Rehabilitation Services

**Tanya Sprinkle, RN**, Patient and Family Services

**Ronette Starnes**, RN, MSN, Home Health

**Cher Stone-Bustle, RHIT, CTR**, Oncology Data and Accreditation Coordinator

**Becky Quate, RN, MHA**, Vice President of Nursing and Patient Outcomes

**Lisa H. Warren, MSN, MHA, RN**, Community Wellness

**Pam Wooten**, RN, Clinical Trial Coordinator

The Cancer Committee is a multidisciplinary standing committee consisting of members of the active medical staff representing Hematology/Oncology, Pathology, Radiation Oncology, Radiology, and Surgery. Non-physician members include representatives from Pastoral Care, Administration, Dietary and Nutritional Services, Nursing, Medical Records, Quality Improvement, Patient and Family Services and the Cancer Registry.

The Iredell Health System Cancer Committee meets quarterly and provides leadership to plan, initiate, stimulate, and assess all cancer-related activities within the Iredell Health Care System. The Committee establishes yearly goals and priorities.

# Mission Statement

## Inspire Wellbeing - Together

As an organization, we are here to serve our patients and their families in every way possible. This includes helping them to stay healthy and caring for them when they are sick. We must also care for each other – the service of delivering healthcare is hard work. We must create an environment that supports all of us as we care for patients. It is important that our mission focuses on 4 key elements:

- Enhancing patient experience
- Improving population health
- Providing cost effective care
- Caring for the caregiver



The words “inspire” and “wellbeing” represent what Iredell Health System is all about. By definition, inspire is to “fill someone with the urge or ability to do or feel something.” Wellbeing is “the state of being comfortable, healthy, or happy.”

The literal meaning of those two words clearly describes what we strive to do each day – it defines why we each get out of bed in the morning and motivates us to keep going. We all strive to inspire our patients, their families and our coworkers to be their best. And at the heart of all we do is each person’s wellbeing, whether it’s a patient on the road to recovery, someone coping with the realization that they are facing life changes, encouraging preventative measures and sharing health education in the community, or making sure each employee feels valued and has the resources they need to succeed.

Every person in our organization is important and is needed to make our mission a reality. By adding the word “together” at the end of the new mission statement, it cements the idea that without each individual’s contributions, we cannot succeed. If we do things together, we will lead our consumers and each other to happy, healthier lives.

### Our Vision

#### Guide our Neighbors to Optimal Health

We want to be the number one choice for healthcare in Iredell and surrounding counties. We understand that people experience life changes based on the progression of illnesses, and we aim to help them achieve optimal health in their circumstances. As we strive to implement our mission of inspiring wellbeing, we must also look to the future and set our sights on where we want to go as an organization. Guiding isn’t just about being the best choice, though. It also means playing an integral role in making sure we meet patients and their families where they are on their journey.

Our vision is to guide our neighbors to optimal health — to help them reach their best or most favorable outcome based on their circumstances. As we move forward together and inspire wellbeing in all we do, we will set ourselves on the path to achieve our vision of the future.

### Our Values

- Compassion
- Respect
- Collaboration
- Integrity

Our values must encompass all that we expect from our employees and what we expect of each other. Values represent who we are, what we believe in, and how we treat each other, our patients, and anyone who crosses our path.

To demonstrate these values we must be sympathetic, treat others with dignity and class, work together for the betterment of our patients and our organization as a whole, and be honest in all that we do. These values are instrumental in helping us to achieve our mission and vision and ensure our success as an organization.

# Report from the Cancer Liaison Physician

## Gayla Lowery, MD

Iredell Health System's Cancer Program is in its twenty second year and remains committed to providing quality and compassionate care to the cancer patients of Iredell and surrounding counties. This effort is not limited only to inpatients and outpatients in our care, but also includes outreach programs. While 75% of our patients come from Iredell county, a seven-county area is served.

Much of improvement in national statistics on cancer mortality and morbidity has been due to improved early detection in several cancers. Iredell Health System has actively developed outreach programs to improve cancer control efforts in the areas of prevention and early diagnosis. Increased awareness of patients and their caregivers of available technology for cancer detection, symptoms and signs that could indicate a cancer, and the importance of regular screening for breast, colon, and prostate cancer is important in continued of cancer control and quality of survival. In the last year, Iredell Health System's Cancer Program has continued to emphasize prevention and early detection with educational programs for the community.

The Cancer Program of Iredell Health System promotes a comprehensive, multidisciplinary approach to the management of the cancer patient. The Cancer Conference is led by Dr. Georgia Olympio, Chairman of the Cancer Committee. The conference provides an opportunity for discussions of individual patients and

exploration of additional treatment options in their care. Didactic presentations of the literature increases the knowledge base of physicians, and analysis of our local results promotes the continued improvement of our program and ability to care for cancer patients.

The Cancer Conference encourages consultation and discussion among the different modality specialists including surgery, chemotherapy and radiation therapy, and therefore promotes the use of multimodality treatment programs. The increasing use of multiple modalities in the care of cancer patients has resulted in the improved outcomes for patients suffering with cancer. Local statistics indicate that Iredell Health System's Cancer Program continues with the delivery of multimodality cancer care. Treatment outcomes statistics reviewed at Cancer Conference compare favorably with national statistics.

Iredell Health System remains committed to a high standard of cancer care including improved diagnosis, staging, and surveillance of the cancer patient following treatment. Quality of survival is promoted through support groups facilitated at the hospital. As a cancer specialist, it is a privilege to be one of the physicians and staff actively involved in the ongoing efforts of the Cancer Program of Iredell Health System to provide the highest quality of care for our patients with cancer.

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## Cancer Conference

The multidisciplinary Cancer Conference is held on the fourth Tuesday of each month. Cases are presented and discussed by Medical Oncologists, Surgeons, Pathologists, Radiologists, Radiation Oncologists, as well as other specialists and Primary Care Physicians. Support services are also represented at the Cancer Conference.

Didactic material including national treatment guidelines, current case histories, Clinical AJCC Stage, MRI, PET and CT scans, X-rays, pathology photos and slides are presented at multi-specialty discussions where dialogue is encouraged. Data from our Cancer Registry is presented primarily as a retrospective analysis of a number of cases, histologic subtypes, types of therapy, cancer care outcome and survival data so that it can be compared to regional and national statistics. Category 1 CME credit approval is provided by Wake Forest University School of Medicine AHEC for the Cancer Conference.



# Cancer Services

## Chaplain

The chaplain provided pastoral care to cancer patients and their families throughout 2017. A concerted effort was made to initiate pastoral visits with each newly diagnosed cancer patient. Patients with recurrent cancers and patients receiving treatments were also of highest priority for pastoral visitation.

The chaplain addressed the emotional and spiritual needs of patients and their families. These needs were met through pastoral visits, referrals to local pastors, distributing literature and/or videos, and offering Wednesday prayer meetings.

Additional means of providing pastoral services included Sunday morning worship services and Bible studies twice a week. The "Living with Cancer Support Group" meets monthly, providing ministry to staff, patients, families and community. The group has been in operation since 1999 and is available to anyone that has had a diagnosis of cancer and their support person.

## Clinical Trials

Treatment Trials are available to patients. Both Medical and Radiation Oncologists are members of Southeast Clinical Oncology Research Consortium, which is part of the Community Cancer Oncology Program (CCOP), based in Winston-Salem, NC. A wide variety of trials from all major research groups are accessible for patients. A Clinical Trials Coordinator is available to assist the Oncologists and patients in enrolling in Clinical Trials.





# Community Wellness Cancer Prevention Programs

## Objectives:

1. Coordinate/present community programs related to cancer awareness and cancer prevention, such as the following:
  - Fresh Start (tobacco cessation classes) offered within the corporate, community and outpatient settings
  - Taking Control: Reducing Your Risks of Cancer for Men — Colorectal, Prostate, Testicular, Skin, Lung
  - Cancer Concerns for Women — Skin, Ovarian, Lung, Breast, Cervical
2. Make information on cancer available to people in the community via pamphlets, videos, articles from health-related publications and initiatives included in the Community Health Needs Assessment. Make referrals to local cancer support groups.
3. Partner with American Cancer Society - Southeast Region and the Iredell County Health Department to offer community awareness, education and screening specifically related to colorectal cancer
4. Assess needs and provide classes and screenings for local businesses and industries associated with cancer risk reduction/cancer prevention, such as the following:
  - self-breast exam education
  - mammography (in cooperation with Women's Health Center)
  - weight management and nutrition programs associated with reducing cancer risk (working with clinical dieticians)
  - exercise (utilizing expertise of exercise physiologist, exercise specialist)
  - stress management (utilizing expertise of a licensed counselor)
  - annual prostate screening clinic (September is Men's Health Month) in the community and Fire Departments that participate in Iredell Fitness.
  - Support LiveStrong in conjunction with YMCA of Iredell County
5. Assist local school systems with efforts to increase staff and student awareness of cancer prevention, per request, with the following activities:
  - skin cancer awareness
  - self-breast exam education
  - testicular self-exam education
  - cancer associated with alcohol abuse
  - nutrition and cancer prevention
  - AIDS info/education
  - hazards of tobacco use (smoking and chewing), second hand smoke, third hand smoke and e-cigarettes
6. Participate/coordinate local American Cancer Society programs which promote education for cancer prevention:
  - "Look Good Feel Better" program for women going through cancer treatment
  - "Reach To Recovery" program with volunteers who visit breast cancer patients
  - "Fresh Start" tobacco cessation program
  - Referrals to local "Living With Cancer" support group headed by Tom Sherrod, IHS Chaplain
7. Utilize health information gathered through IHS employee health screenings to target group education/awareness for specific cancer prevention:
  - Coordinate "Lunch & Learn" programs on topics such as nutrition, exercise, weight management, smoking cessation
  - Display/bulletin boards with health messages
  - Coordinate opportunities for group participation in activities that reduce risk of cancer, including weight loss competition, Weight Watchers and #thenext56days programs
  - Employee Fitness Room utilization, healthy options in IHS cafeteria, employee participation in area bike rides, walk/running events
  - IHS Employee Wellness Nurse meets with individual employees to set goals for lifestyle improvement/cancer risk reduction



## Support Groups

### Cancer Companions®

Cancer Companions is a Christian-based support group that provides cancer patients, family members and caregivers with updated information about a variety of topics including understanding cancer, cancer treatments, dealing with the side effects of cancer treatments, community resources and more. For information, call 704-878-7799 or visit their website, [Cancer-Companions.org](http://Cancer-Companions.org).

### The Living with Cancer Support Group

Meets at noon on the 4th Tuesday of each month in the One West Living Room at Iredell Memorial Hospital. For info, call Alison Simmons, Chaplain, 704-873-5661, extension 3414.

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## Continuous Quality Improvement

The objective of the Continuous Quality Improvement program is to help ensure that optimal care is provided to all cancer patients by reducing risks, hazards, and expense within the hospital through:

- establishing a planned and systematic approach to monitor, analyze, and improve performance;
- coordinating the integration of all quality improvement activities;
- implementing a system for evaluation of information collected through ongoing monitoring and utilization of comparative data sources to identify trends, problems, or opportunities for improvement;
- documenting improved patient care and improving patient outcomes through continuous quality improvement efforts;
- assuring communication and reporting of the Quality Improvement Activities Committee to the Quality Coordinating Council to which it reports.

# Diagnostic Radiology

The Radiology Department at Iredell Memorial Hospital offers full radiographic services including CT, Diagnostic Radiology, Mammography, MRI, Nuclear Medicine, PET/CT and Ultrasound, all of which are useful in the diagnosis of cancer.

The Radiology Department maintains a commitment of providing quality radiographic services to Iredell and surrounding counties.

Our Women's Health Center (WHC) offers 3D screening mammography on a self-referral basis. The WHC also offers a comprehensive patient and community education program about breast disease.

The Radiology department also performs ultrasound and MRI guided vacuum assisted breast biopsies to provide options for less invasive procedures to diagnose breast cancer

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## Nursing Services

The primary goal of an oncology nurse is to improve the quality of life for the cancer patient. The philosophy of the Infusion Care Services staff is to provide excellent quality nursing care, with skill and compassion and to give emotional support to the patients and their families.

Other goals and therapies include the following:

- providing direct patient care using the nursing process;
- safe administration and handling of the chemotherapy drugs selected by the oncologists for both inpatients and outpatients — the Oncology Nursing Society Cancer Chemotherapy Guidelines are used as a reference for our Policies and Procedures;
- individualized patient and family education before, during, and after chemotherapy sessions;
- providing emotional, mental, and spiritual support to the patient and family by working with the hospital chaplain and social workers;
- maintaining communication and cooperation with the pharmacy staff and the oncologists to ensure efficient implementation of a chemotherapy regimen;

- assessing central venous access devices for blood testing for laboratory, radiation therapy, and assisting staff nurses in troubleshooting problems with central venous access devices;
- education in the care and maintenance of peripherally inserted central catheters.
- assisting patients in coordinating their care with appointments and support services
- working in collaboration with the hospital Wellness Department in providing community cancer support education

Nursing services' administrative responsibilities include developing and revising related oncology policies and procedures, conducting staff inservices and providing educational support to other patient service departments, and also in the evaluation of new equipment and supply items.

Chemotherapy administration and supportive therapy with blood products, antibiotics, and diagnostic procedures are available for both inpatients and outpatients at Iredell Memorial Hospital. Since 1989, these services for outpatients have been provided in the Infusion Care Services Center.

# Nutrition Support Services

The Clinical Dietitian works closely with cancer patients during the course of treatment. All patients are screened within 24 hours for such nutritional risks as the inability to eat, unintentional weight loss, decreased appetite, tube feeding or total parenteral nutrition, and skin breakdown. Cancer patients are also placed on the Cancer Pathway, which is an automatic consult for the Clinical Dietitian.

After a thorough clinical assessment; recommendations are made regarding the patient's energy and protein needs, intake while in the hospital and tolerance to the prescribed diet and/or supplements The Clinical Dietitian then implements a care plan accordingly.

Most cancer patients are at risk, largely due to unintentional weight loss, loss of appetite, and decreased intake. To assist the patients in their menu selections, collect preferences, and offer alternate menu selections, the Dietary Representatives call and visit the patients daily.

The Clinical Dietitian may provide written information to patients and family regarding diet and their treatment. Goals will be established for such things as caloric intake, weight gain and tolerance to prescribed diet.

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## Patient and Family Services

The Patient and Family Services Department conducts utilization review activities and provides discharge planning and social services to patients. Any healthcare provider can make referrals to the Patient and Family Services Department for discharge planning or social services. Screening criteria are utilized upon admission to identify those patients at high-risk for discharge planning needs. Upon receipt of any referral, the Care Coordinator or Medical Social Worker reviews the patient's chart and consults with the Physician and/or pertinent staff to obtain more information regarding the referral.

The primary areas of direct services available to patients, their families, and the hospital, are the following:

- continuity of care planning
- referral to appropriate community resources
- referral to appropriate resources for financial assistance
- fulfillment of requests for assessments/social histories
- assessment for counseling needs
- coordination of adoption procedure

All ages of patients are served. Outpatient and emergency discharge planning and social services are available upon direct Physician request.

Interdisciplinary Care Planning is achieved through the Plan of Care in the electronic health record. Each discipline is responsible for reviewing the Plan of Care and documenting progress toward goals. The Care Coordinator/Social Worker is responsible to document any problem addressed by their discipline and document the progress toward the goal. Interdisciplinary meetings are also held twice weekly on patients with a length of stay of 4 days or greater. Care Coordinators and Social Workers are available to act in an anticipatory or advisory role for the Cancer Committee and can act in an anticipatory or advisory role for the Community Alternative Program (CAP), Stroke Support Group and the Oncology Support Group.

The Patient and Family Services Department staff consists of an RN Patient and Family Services Coordinator, eight RN Care Coordinators, one Discharge Planner, and two Social Workers.

# Patient and Family Education

The Patient and Family Services Department participates in the overall patient/family education process, providing specific information as it relates to continuity of care post discharge and during the utilization review processes. Care Coordinators and Social Workers help provide and coordinate educational activities and resources to meet post-hospital needs. This is an interdisciplinary process both inside and outside of the hospital.

Resources may be financial, home health, durable medical equipment, support services or extended care facilities. Patients/families will be provided with sufficient information regarding providers, anticipated coverage of services, and discharge options in order to allow them to make an informed choice regarding discharge plans.

When patients are sent home with durable medical equipment, the provider of the service gives instructions on its use or operation. When appropriate, home health agencies provide teaching materials and hands-on instructions. The department, in turn, provides appropriate medical information to agencies/facilities as requested and needed for continuity of care.

A Social Worker/Discharge Planner is assigned to units where potential exists for more in-depth skills and understanding of the grieving process, death and dying, pain, patient and family adjustment to chronic illness, and the regulation of protective services issues and adoption. These units include the following:

- 4 North - Oncology, Renal, Pediatric patients
- 3 North – Pediatric Patients
- The Birth Place
- Intensive Care

If a patient transfers to another unit after a Care Coordinator and/or Social Worker has initiated service with the patient, the Care Coordinator and/or Social Worker assigned to a patient will usually change when the patient is transferred to another acute unit or the skilled nursing unit. Continuity of care is assured through staff communication and documentation in the medical record and services provided to date. Patient assignments may vary depending upon work load, individual patient need, and personal request from patient, family member, or physician.

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## Discharge Planning

In order to encourage the most efficient use of available health services and facilities, all necessary assistance is provided to the physician in his timely planning for post-hospital care. The Discharge Plan outlines how this process will be conducted.

Length of stay meetings are held twice weekly and are attended by the interdisciplinary team such as, Patient and Family Services Coordinator, Care Coordinators, Social Workers, HBSNF Care Coordinator, Pharmacist, Dietitian, Nurse Clinicians, and other Nursing representatives as indicated. Other hospital personnel may be asked to attend as needed. Patients to be discussed are identified by length of stay greater than 4 days or by recommendation of Care Coordinator, Social Worker and/or Charge Nurse.

During meetings, the disciplines involved in patient's care collaborate on the patient's discharge plan. Progress toward discharge is documented in the Electronic Health Record in the Interdisciplinary Team Meeting Form. The Discharge Planning members will utilize a system of interdepartmental communication, whereby those persons involved with discharge planning are kept informed as to activities in other departments and committees and remain knowledgeable of current community resources available to assist patients and families with post-hospital planning.

# Pharmaceutical Services

Iredell Memorial Hospital's Pharmacy Department provides medications to patients; provides educational information to physicians, nurses, and other hospital staff; and establishes guidelines for the safe handling of chemotherapy drugs and waste by all hospital personnel. Pharmacy services are available 24 hours per day and a pharmacist is present at all times.

Pharmacists interact daily with nurses and patients to provide chemotherapy drugs at the right dose and at the right time. Preparation of chemotherapy is reviewed for accuracy by pharmacy and nursing staff members before administration to the patient. Chemotherapy agents are compounded in a clean room that is compliant with USP Chapter 797.

Procedures for the Safe Handling of Chemotherapeutic Agents are established and reviewed by pharmacists annually. Chemotherapy agents are stored separately from other medications. Chemotherapy spill kits are available.

A wide variety of anti-infectives are available to treat infections in the immunocompromised patient. Pharmacokinetic monitoring of serum drug levels is available for patients receiving aminoglycosides and vancomycin. Narcotics, non-steroidal anti-inflammatory drugs, patient controlled analgesia, and epidurals are available for use in the management of primary and breakthrough pain in the cancer patient. Anti-emetic drugs and colony stimulating factors are available to treat nausea and decreased white blood cells often seen with certain chemotherapy agents.

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## Radiation Therapy

The J. Allen Knox Radiation Therapy Center provides patient care for the treatment of cancer. The Radiation Oncologists work in conjunction with other specialists and primary care physicians to develop comprehensive treatment plans. The department continues to examine new treatment modalities, equipment and techniques to maintain the delivery of high quality, convenient radiation therapy treatments to area residents. The radiation therapy department continues participation in protocols through the Southeast Clinical Oncology Research Consortium. These protocols include cancer treatment studies as well as cancer control protocols and quality of life studies.

The department uses a Varian True Beam linear accelerator, which is utilized to provide an increased number of beam energies for treatment. It also has improved imaging capabilities to allow for more precise treatment delivery. These advances in treatment energy and imaging allow the delivery of treatment to more precise targets with extreme accuracy and better sparing of normal tissue. The treatment course can, in some cases, be dramatically reduced with Stereotactic Body Radiation Therapy (SBRT) treatment planning and treatment with impressive tumor response rates.

Not all patients are candidates for this type of treatment, but a number of patients have treated with this technique with minimal side effects and impressive response rates. Several enhanced features of the True Beam have been commissioned and are operational which include Intensity Modulated Radiation Therapy (IMRT), Volumetric Modulated Arc Therapy (VMAT) and Prone Breast Radiation Therapy. These features allow for better dose distribution to tumor and less dose to normal structures. A computerized dose double check is utilized to assist in planning for prostate seed implants. An Electronic Medical Record (EMR) has also been implemented, along with a computerized treatment planning computer system to insure Patient safety and efficiency of treatment delivery.

With the services of Landaver Medical Physicists on site in the department, the radiation therapy department is able to offer the latest technology and to assure the quality and accuracy of treatment.

The center provides education to cancer patients and citizens of Iredell County through participation in local support groups and civic meetings. We also help connect patients with other local agencies when they need assistance with finances or transportation.

# Rehabilitation Services

Iredell Health System offers a wide variety of therapies in acute care, hospital-based skilled nursing, and outpatient services that help patients cope with activities of daily living that are affected by their personal cancer experience. Our therapists look at each patient and determine how their individual needs can best be met by our rehab team. We work closely with nursing, social workers, physicians, and other staff to provide an interdisciplinary approach in treating our patients with the goal to help them resume normal activities and better quality of life.

Our therapies include:

## Physical Therapy

Therapists will assist patients to improve their physical strength and ability to move. This is especially important for people who notice physical changes after cancer treatment that affect how they move. People experiencing the following challenges can benefit from physical therapy.

- Muscle loss from long-term bed rest
- Difficulty balancing
- Needing a cane or other assistive device

Additionally, in mid-2014 we opened a rehab gym addition for our hospital-based skilled nursing population.

## Occupational Therapy

Therapists will assist patients to improve the activities important to them with methods and tools to increase function, comfort, and safety. We can design a tailored therapy plan based on the layout of a person's home, school, or work place. They can also help reduce the effort needed to do certain tasks through energy-conservation training.

## Speech Therapy

Therapists will assist patients to improve their communication and swallowing disorders. A speech and language pathologist (SLP) helps patients regain their speaking, swallowing, and oral motor skills after treatment that affects the head, mouth, and neck. We also provide specialized care with Vital Stim to improve swallowing function as indicated.

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# Women's Health Center

The Women's Health Center continues to serve women meeting the American Cancer Society guidelines for screening mammography. This is a low cost service for which patients may schedule their own appointments to receive their annual mammogram, as well as breast cancer education. Patients are assisted in resolving concerns they may have regarding their breast health. Personnel will assist them in contacting their physician if a diagnostic mammogram is needed, or will assist them in obtaining a physician for those who do not have a healthcare provider. We now have breast tomosynthesis, or 3D mammography, the newest technology in mammography available to our patients.

Many women have come to appreciate the opportunity of having their bone density screening through our Center as well. This test is provided to women with their doctor's order, and the appointment can be coordinated with the screening mammogram.

In 2017, we provided 6541 screening mammograms through the Womens Health Center and 1041 mammograms in the Radiology Department. The MR department in Radiology provided 62 Breast MR exams. A diagnosis of breast cancer was found in 45 of the women provided with mammography services through Iredell Health Care System.

Throughout the year, we have provided educational material to various community, employee, and church health fairs. This material is provided free of charge. We have also assisted numerous low income patients obtain mammograms through our mammography fund. In 2017, we were able to provide mammograms, both screening and diagnostic for approximately 130 women, who otherwise could not have afforded it financially, through our mammography fund.



# Reports & Statistics

## Cancer Registry Report

The Cancer Registry staff collects, manages, analyzes, and disseminates information on all cancer patients diagnosed and/or treated within Iredell Health System. This information is used to assist in evaluating our diagnostic and therapeutic efforts and to assess the quality of care provided to the cancer patients. The Registry is one component of the IHS Cancer Program, which is approved by the American College of Surgeons (ACoS) Commission on Cancer (COC) as a Community Hospital Cancer Program.

### The primary functions of the Cancer Registry are:

- to register all patients with malignant neoplasms and certain benign tumors of the brain and central nervous system;
- to conduct lifetime follow-up on patients with invasive cancers;
- to provide cancer information to staff physicians, hospital administrators, and researchers (local, state, and national);
- to report newly diagnosed cancer cases to the North Carolina Central Cancer Registry NC-CCR) for our staff physicians as described in the North Carolina General Statutes 130A-209 through 130A-212.

The Registry accessioned 352 cases in 2017, bringing the total number of cases in the database to 11,348 since our reference date of January 1, 1989.

Performing annual lifetime follow-up directly benefits patients as it reminds the physician and the patient of the need for continued medical surveillance. This is important in order to assure early detection of a possible recurrence, or to diagnose a new primary malignancy. During 2017, the Cancer Registry staff maintained an average follow-up rate of over 95% for patients diagnosed in the last 5 years and overall follow-up rate of over 90%.

This was the 22nd year that the IHS Cancer Program participated in the National Cancer Data Base (NCDB) of the ACoS Commission on Cancer. The benefits of participating include an annual review of patient care nationally, a general summary report of our hospital's care patterns for comparison to the national data, and a data edit report to ensure quality of our cancer data. The NCDB provides a useful benchmark for patient care and continuous quality improvement efforts of the IHS Cancer Program.

Collected data are used to evaluate therapies and their outcomes, which may assist our physicians to better plan treatment strategies for cancer patients in their care.



# Quality of Data in the Cancer Registry

The Cancer Registry staff continually strives for data quality through a variety of monitoring systems. In 2017, as in past years, a minimum of 10% of the newly diagnosed cases were reviewed by the Cancer Committee. The team members verify accurate recording of the class of case, primary anatomic site, histology, stage of disease, and treatment by comparing the completed abstract with the patient's medical record. In addition to the Cancer Committee review, the Cancer Registry software, Electronic Registry Systems (ERS), has extensive built-in data validation edits at the time of data entry that contribute to high quality data. These include, interfield edits (inconsistent entry between two data items), missing data edits, and the use of "smart menus" that direct the appearance of certain other menus. ERS also provides global edit checking functions whereby a group of cases may be selectively assessed at any time for accuracy and completeness.

The global edit program is used extensively when preparing a data file for export to NC-CCR or the NCDB. The NC-CCR provides another level of quality assurance by providing independent assessment of accuracy and completeness of

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## TNM Staging Requirements

IHS believes that documentation of extent of disease at the time of treatment planning is fundamental to good care. Beginning in 1995, the ACoS Commission on Cancer required that all analytic cases be staged by the managing physician using the AJCC system. The elements T(tumor), N(node), and M(metastasis) must be assigned by the physician and appear in the medical record. To facilitate this, the appropriate staging form is attached to the pathology report of all newly diagnosed cases and sent to the floor if an inpatient or to Medical Records Department if an outpatient. Iredell Memorial Hospital includes physician staging as a deficiency item for chart completion. In addition, every cancer case is independently restaged by the Cancer Registrar during the abstraction process. Any discrepancy is reviewed and resolved using the approved procedure.



# 2017 Cancer Registry Statistics

The total number of new cancer cases in 2017 was 351 cases.

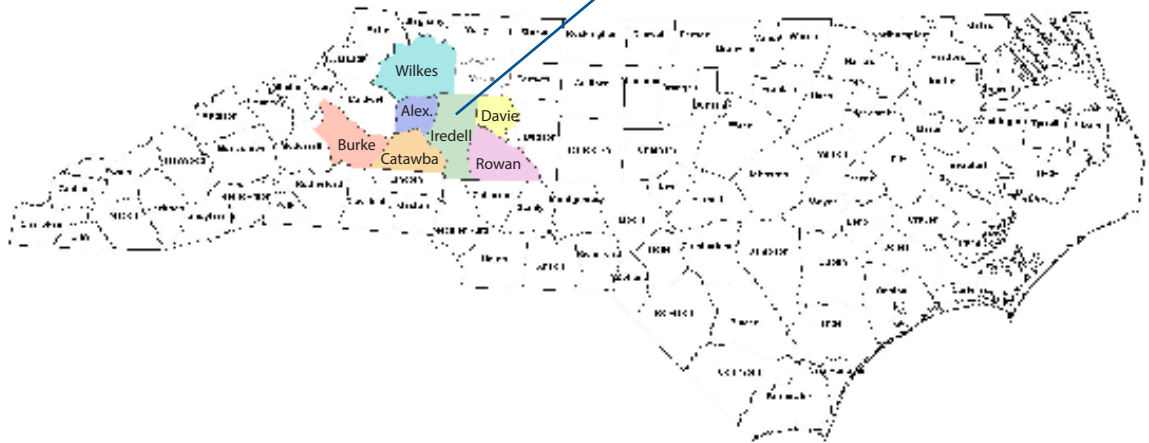
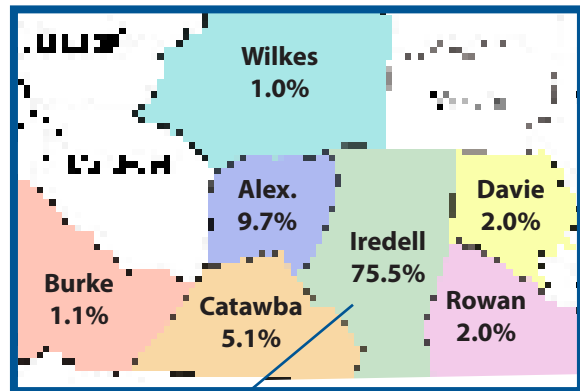
Male patients numbered 175 (50%) and females 176 (50%). Racial distribution was: White 87%, Black 11%, and 1.0% all others.

Geographically, 2017 referral pattern was mainly from Iredell County (75.5%), Alexander (9.7%), Catawba (5.1%), Rowan (2.0%), Davie (2.0%), Burke (1.1%) and Wilkes (1.0%). Referral from all other counties in North Carolina totaled 3.6%

## Distribution of 2017 Patients by County of Residence at Diagnosis (N = 351)

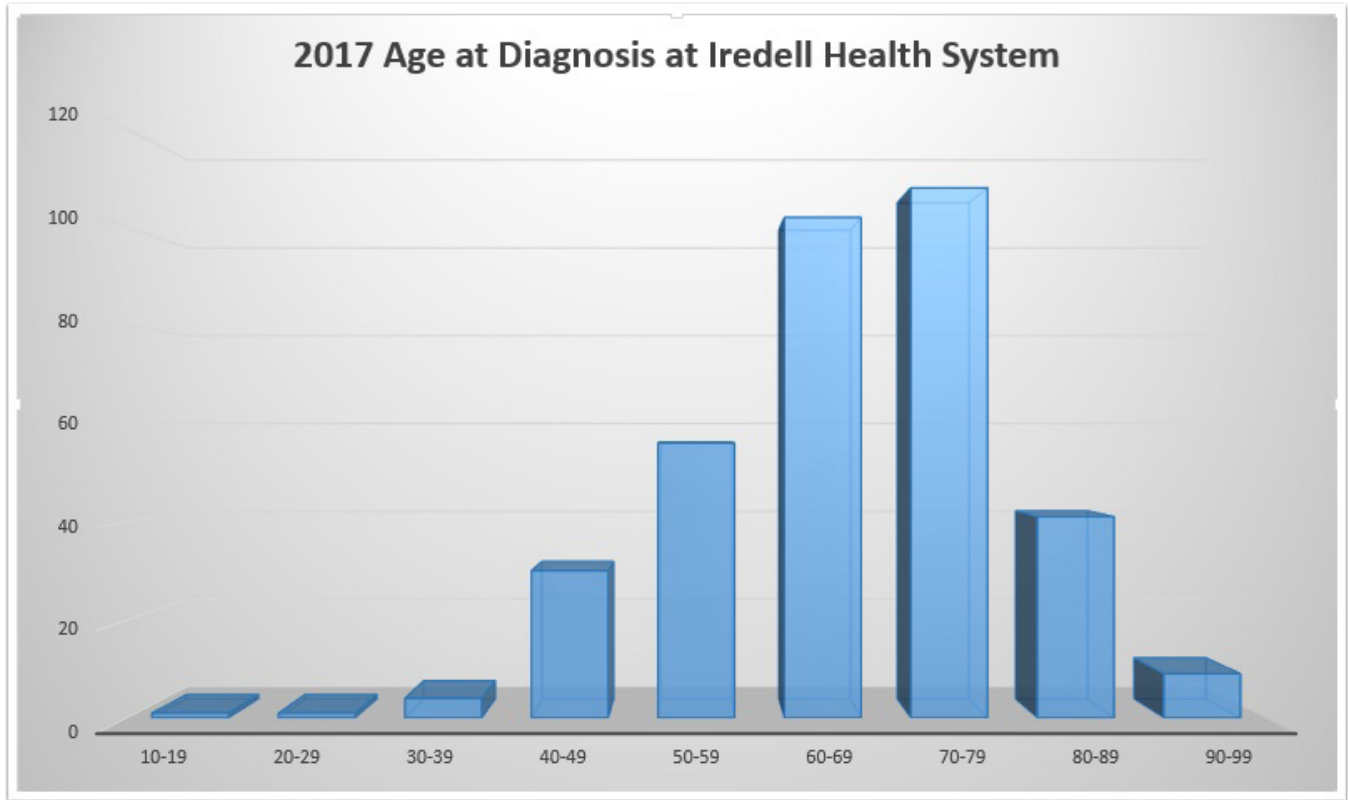
### Counties Percentage

Iredell	75.5%
Alexander	9.7%
Catawba	5.1%
Rowan	2.0%
Davie	1.1%
Burke	1.1%
Wilkes	1.0%
All other Counties	2.0%



# Distribution by Age at Diagnosis

Age distribution and gender of the 2017 patients is illustrated below.



## Age Range

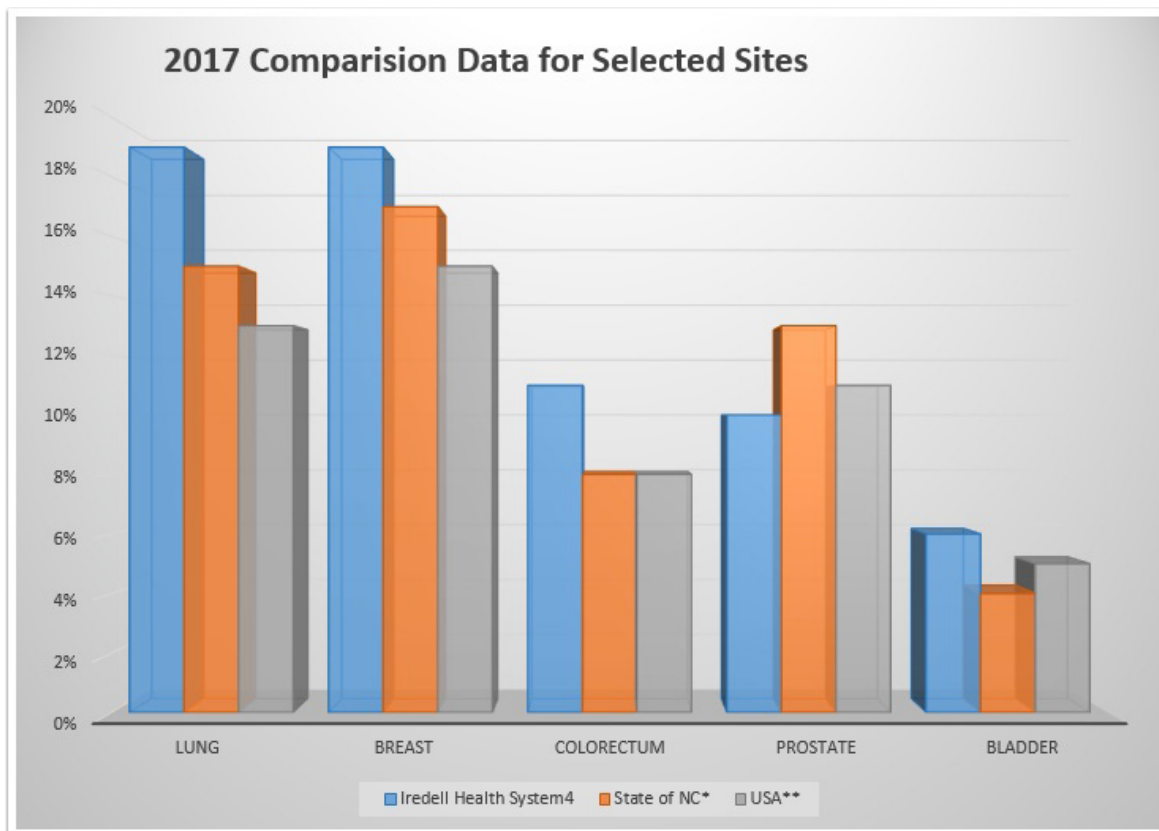
10 - 19	1
20 - 29	1
30 - 39	4
40 - 49	30
50 - 59	56
60 - 69	102
70 - 79	108
80 - 89	41
90 - 99	9

**TOTALS** 352

**Table 2.1 - 2017 Comparison Data for Selected Sites**  
**Iredell Memorial Hospital, North Carolina, and USA**

Site	IHS	NC*	USA**
<b>Total Number of Patients</b>	<b>352</b>	<b>57624</b>	<b>1,658,370</b>
	<b>%</b>	<b>%</b>	<b>%</b>
<b>Lung</b>	<b>19.0</b>	<b>15.0</b>	<b>13.0</b>
<b>Breast</b>	<b>19.0</b>	<b>17.0</b>	<b>15.0</b>
<b>Colorectal</b>	<b>11.0</b>	<b>8.0</b>	<b>8.0</b>
<b>Prostate</b>	<b>10.0</b>	<b>13.0</b>	<b>11.0</b>
<b>Bladder</b>	<b>6.0</b>	<b>4.0</b>	<b>5.0</b>

Note: The above are selected sites chosen for comparison. They will not total 100%.

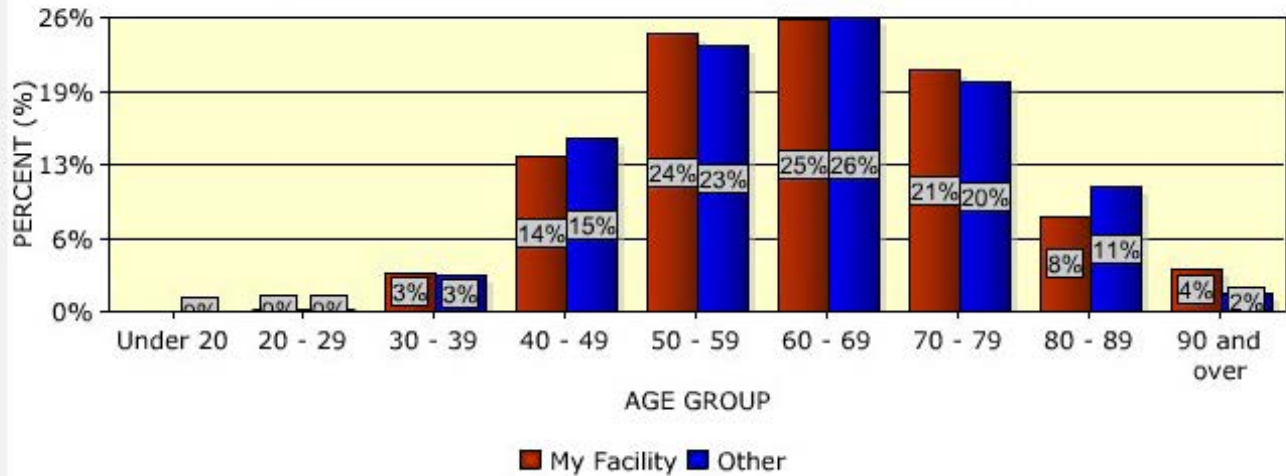


\* Projected NC data from Cancer Facts and Figures North Carolina, 2017.

\*\* Projected USA data from American Cancer Society Cancer Facts and Figures, 2017.



Age Group of Breast Cancer Diagnosed in 2004 to 2014  
 Iredell Memorial Hospital, Statesville NC  
 vs. Community Cancer Program Hospitals in All States  
 All Diagnosis Types - Data from 404 Hospitals

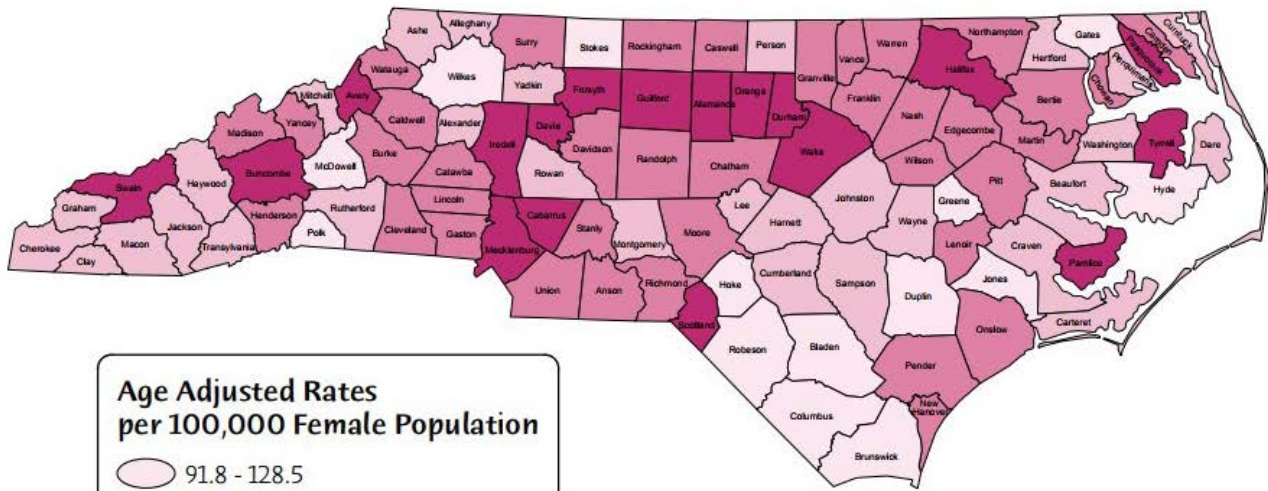


	Under 20	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 and over
<b>My Facility</b>		0%	3%	14%	24%	25%	21%	8%	4%
<b>Other</b>	0%	0%	3%	15%	23%	26%	20%	11%	2%

*Age Group of Breast Cancer Diagnosed in 2004 to 2014*  
**Iredell Memorial Hospital, Statesville NC**  
 vs. Community Cancer Program Hospitals in All States  
 All Diagnosis Types - Data from 404 Hospitals

#	Age Group	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	Under 20	.	9	.	0%
2.	20 - 29	2	760	0.25%	0.34%
3.	30 - 39	28	7498	3.46%	3.31%
4.	40 - 49	110	34219	13.6%	15.12%
5.	50 - 59	196	52564	24.23%	23.22%
6.	60 - 69	206	57787	25.46%	25.53%
7.	70 - 79	170	45202	21.01%	19.97%
8.	80 - 89	67	24623	8.28%	10.88%

# North Carolina Female Breast Cancer Incidence Rates 2010-2014



**Age Adjusted Rates  
per 100,000 Female Population**

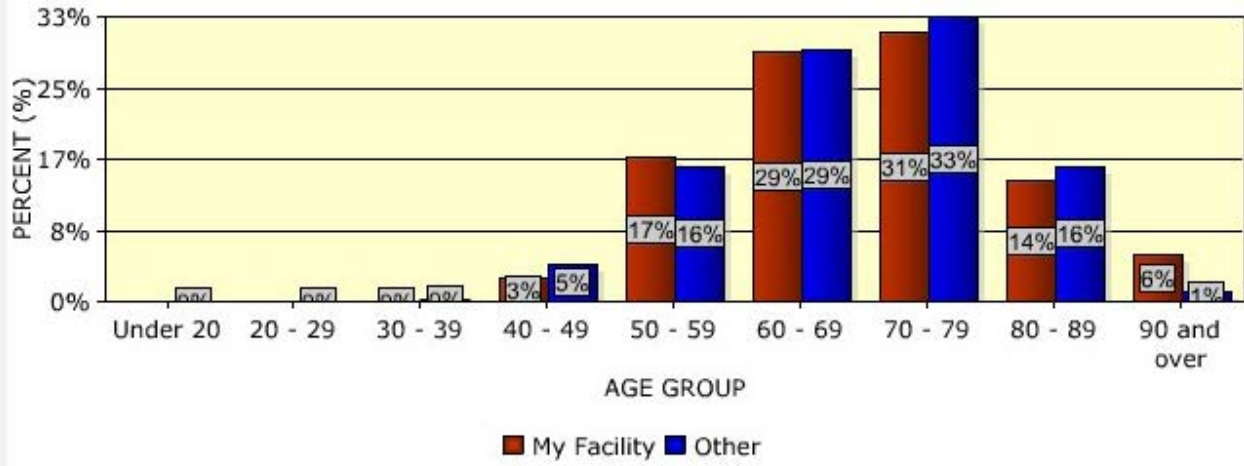
- 91.8 - 128.5
- 128.6 - 149.0
- 149.1 - 165.1
- 165.2 - 197.9

Note: In situ cases are included. Information is subject to change as files are updated.

December 2016



Age Group of Lung, Bronchus - Non-Small Cell Carcinoma Cancer Diagnosed in 2004 to 2014  
 Iredell Memorial Hospital, Statesville NC  
 vs. Community Cancer Program Hospitals in All States  
 All Diagnosis Types - Data from 404 Hospitals

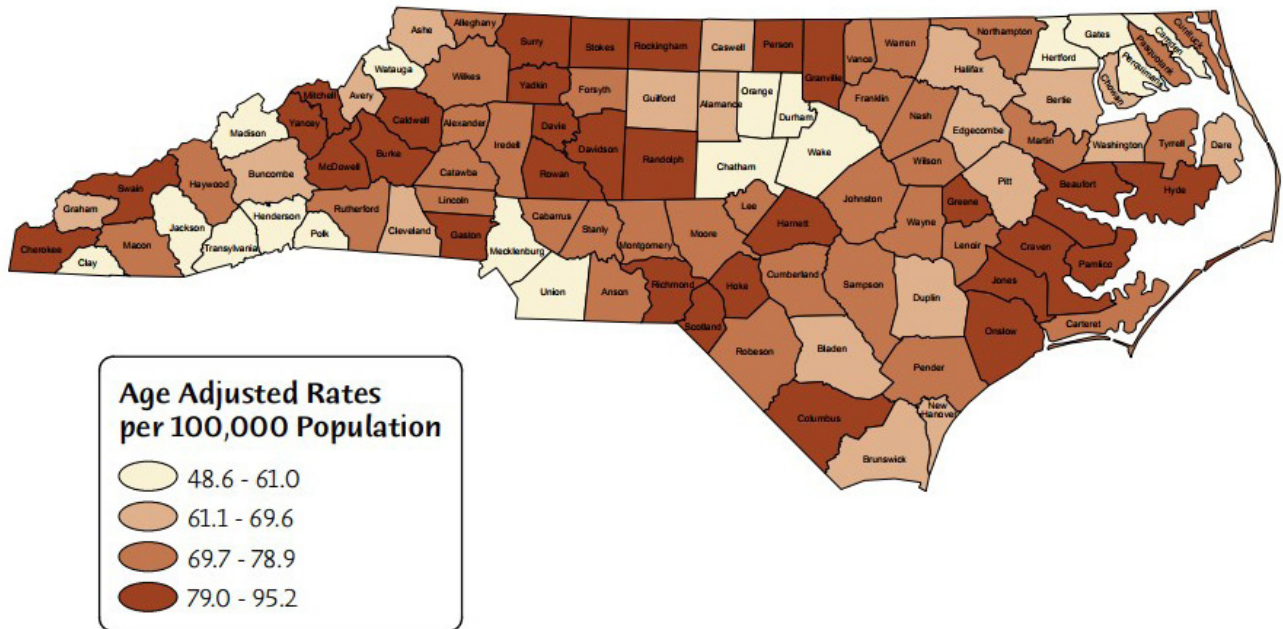


	Under 20	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 and over
<b>My Facility</b>			0%	3%	17%	29%	31%	14%	6%
<b>Other</b>	0%	0%	0%	5%	16%	29%	33%	16%	1%

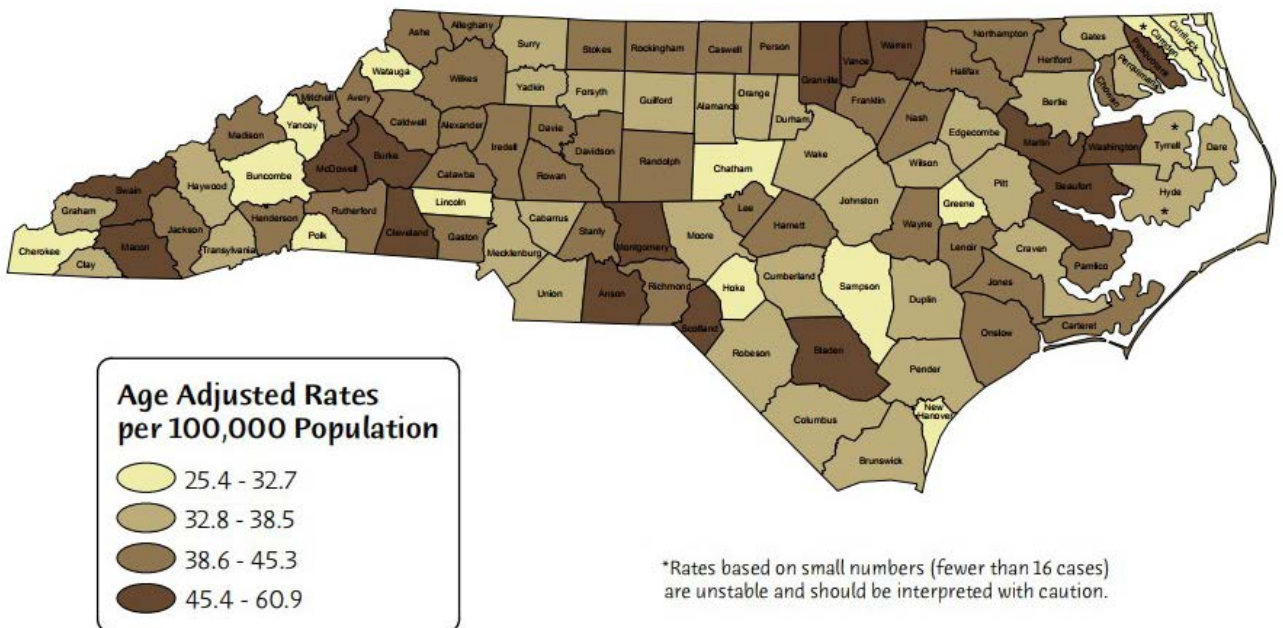
*Age Group of Lung, Bronchus - Non-Small Cell Carcinoma Cancer Diagnosed in 2004 to 2014*  
**Iredell Memorial Hospital, Statesville NC**  
 vs. Community Cancer Program Hospitals in All States  
 All Diagnosis Types - Data from 404 Hospitals

#	Age Group	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	<b>Under 20</b>	.	5	.	0%
2.	<b>20 - 29</b>	.	82	.	0.06%
3.	<b>30 - 39</b>	1	592	0.22%	0.43%
4.	<b>40 - 49</b>	13	6221	2.8%	4.52%
5.	<b>50 - 59</b>	78	21791	16.77%	15.83%
6.	<b>60 - 69</b>	135	40207	29.03%	29.2%
7.	<b>70 - 79</b>	146	45499	31.4%	33.04%
8.	<b>80 - 89</b>	66	21686	14.19%	15.75%

# North Carolina Lung Cancer Incidence Rates 2010-2014

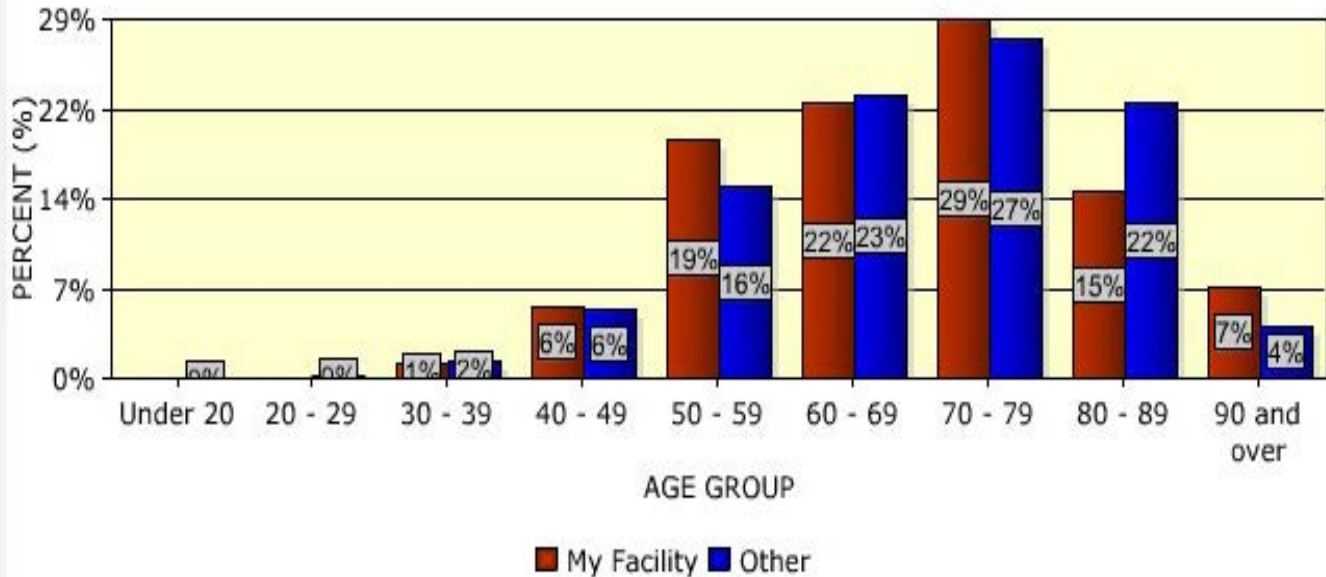


# North Carolina Colon Cancer Incidence Rates 2010 - 2014





Age Group of Colon Cancer Diagnosed in 2004 to 2014  
 Iredell Memorial Hospital, Statesville NC  
 vs. Community Cancer Program Hospitals in All States  
 All Diagnosis Types - Data from 406 Hospitals



	Under 20	20 - 29	30 - 39	40 - 49	50 - 59	60 - 69	70 - 79	80 - 89	90 and over
<b>My Facility</b>			1%	6%	19%	22%	29%	15%	7%
<b>Other</b>	0%	0%	2%	6%	16%	23%	27%	22%	4%

*Age Group of Colon Cancer Diagnosed in 2004 to 2014*  
**Iredell Memorial Hospital, Statesville NC**  
 vs. Community Cancer Program Hospitals in All States  
 All Diagnosis Types - Data from 406 Hospitals

#	Age Group	My (N)	Oth. (N)	My (%)	Oth. (%)
1.	Under 20	.	73	.	0.07%
2.	20 - 29	.	353	.	0.34%
3.	30 - 39	5	1589	1.37%	1.54%
4.	40 - 49	21	5877	5.77%	5.7%
5.	50 - 59	70	16041	19.23%	15.56%
6.	60 - 69	81	23564	22.25%	22.85%
7.	70 - 79	105	28241	28.85%	27.39%
8.	80 - 89	55	22989	15.11%	22.29%

# Report of Patient Outcomes

The Cancer Committee of Iredell Health System reviewed the compliance for diagnostic evaluation and evaluation of treatment in accordance to the National Comprehensive Cancer Network guidelines (Version 4.2018) for principals of radiation therapy in patients diagnosed with low risk prostate cancer. The National Comprehensive Cancer Network® (NCCN®) is an alliance of 21 of the world's leading cancer centers, working together to develop treatment guidelines for most cancers, and dedicated to research that improves the quality, effectiveness, and efficiency of cancer care. NCCN offers a number of programs to give clinicians access to tools and knowledge that can help guide decision-making in the management of cancer.

**The Risk Stratification and Staging Workup\* for classification of low risk Prostate Cancer are:**

- T1-T2A AND
- Gleason's score < 6/grade group 1 AND
- PSA <10

**The Radiation Therapy parameters\* for Beam Therapy and Brachytherapy Monotherapy for low risk prostate cancer are:**

Beam Therapies:
72 to 80 Gy at 2 Gy per fraction
75.6 to 81.8 Gy at 1.8 Gy per fraction
70.2 at 2.7 Gy per fraction
70 Gy at 2.5 Gy per fraction
60 Gy at 3 Gy per fraction
51.6 Gy 4.3 Gy per fraction
37 Gy at 7.4 Gy per fraction
40 Gy at 8 Gy per fraction
36.25 Gy at 7.25 Gy per fraction

Brachytherapy Monotherapy:
Iodine 125 implant at 145 Gy
Palladium 103 implant at 125 Gy
Cesium implant at 115 Gy
HDR 27 Gy at 13.5 Gy in 2 implant
HDR 38 at 9.5 Gy BID in 2 implants

The course of treatment decided on tumor characteristic logarithm listed in the NCCN Guideline Index (Version 4.2018) for providers. Treatment decisions are based on Histological Classification of Tumor, AJCC Stage (tumor size, presence of lymph node metastasis, and presence of distant metastasis), patient age and overall health of patient.

## Conclusion:

A total of twenty-six (26) patients from 2016-2017 were reviewed for Risk Stratification and Staging Workup. Seven (7) cases were removed because they did not meet requirements of PSA <10 and/or Gleason's score  $\leq$  6/grade group 1 and ten (10) cases were removed because they chose to not receive radiation therapy. Nine (9) cases were reviewed for appropriate principals of Radiation Therapy for low risk prostate carcinoma.

The study revealed appropriate principals of Radiation Therapy in 100% (9) of cases. One (1) patient received the recommended postoperative dosage of 72 Gy at 2 Gy per fraction. Five (5) patients received 75.6 Gy at 1.8 per fraction. Three (3) patients received Iodine 125 implants at 145 Gy.

# Glossary of Terms

## Accessioned

Added to the Cancer Registry database in the year that the patient was first diagnosed/treated within Iredell Health System for this primary cancer

## AJCC

American Joint Committee on Cancer. AJCC Staging: Classification scheme for cancer, established by the American Joint Committee on Cancer, that defines: (T) extent of primary tumor; (N) absence or presence and extent of regional lymph node metastasis; and (M) absence or presence of distant metastasis

## Analytic

Cases diagnosed and/or receiving part or all of first course of treatment within Iredell Health Care System

## Class of Case

A determination of the patient's diagnosis and treatment status at first admission to Iredell Memorial Hospital with a cancer diagnosis

## Distant

Neoplasm has spread beyond adjacent organs or tissues by direct extension and has either developed secondary or metastatic tumors, metastasized to distant lymph nodes, or been determined to be systemic in origin

## First Course of Treatment

The initial tumor-directed treatment or series of treatments, initiated or planned within four months after diagnosis

## Histology

Classification of the type of malignancy through microscopic examination of tissue.

## In Situ

Neoplasm meets all criteria for malignancy except invasion. Intraepithelial, noninvasive, non-infiltrating

## Localized

Neoplasm entirely confined to the organ of origin

## Non-Analytic

Cases diagnosed elsewhere and receiving first course of treatment elsewhere, and subsequent treatment within Iredell Health Care System

## Primary Site

The anatomical location within the human body considered the point of origin for the malignancy

## Regional

Neoplasm has spread by direct extension to immediately adjacent organs or tissues and/or has metastasized to regional lymph nodes or organs and appears to have spread no further

## Stage of Disease

The extent to which the disease has spread

## Survival

All survival statistics are calculated using the actuarial method for observed survival rates (accounts for all deaths, regardless of cause) and includes patients with observation for varying lengths of time and those lost to follow-up

## Unstaged

Stage is said to be unknown when it cannot be determined from the medical record or a medical authority due to insufficient information

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## References & Bibliography

Cancer Facts & Figures – 2017 American Cancer Society.

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Commission on Cancer, Facility Oncology Registry Data Standards (FORDS), American College of Surgeons, 2010.

Greene, FL, Page DL, Fleming, ID et al (eds), AJCC Cancer Staging Manual, 7th Edition, American Joint Committee on Cancer, Philadelphia: Springer-Verlag Publishers, 2010.

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National Cancer Data Base Annual Review of Patient Care 2017, American Cancer Society.

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