

# History of Tuberculosis in South Carolina



**Shea Rabley, RN, MN, Director  
Tuberculosis Control Division  
South Carolina Department of  
Health and Environmental Control**

## 1600s – 1700s

1670: Charles Town is established as an English Colony

1698: First quarantine measures instituted:  
Provincial Legislature required incoming vessels to produce evidence that no persons on board were suffering from a contagious disease before the ship could dock in Charleston Harbor

1700: America's first health officer, Commissioner Gilbert Guttery of Charleston, was empowered to board and inspect all incoming ships before passengers were allowed to come on shore

## 1800s

1808: The City of Charleston established a Board of Health

1814: The Ladies' Benevolent Society of Charleston began volunteer care of the sick and needy in Charleston – the start of public health nursing in SC

1840: Aiken developed into a "Tuberculosis Resort" - Aiken Cottages opened as private sanatorium in 1897

**After the Civil War and Sherman's burning, there essentially is no health care system**



*National Archives and Records*

1868: South Carolina finally established a quarantine system with headquarters based in Charleston

1884: X-Rays were discovered

1892: Koch discovered tuberculin

1878: SC General Assembly created the State Board of Health; charged with protection of the public, investigate causes and means of preventing diseases, supervising the quarantine system and more for only \$2,000 year

1899: SC Board of Health moved to control TB in cows – Dairy Program - felt eating the meat and drinking the milk of cows with TB would continue spreading the disease

## 1900s – 1910s

1904: National Association for the Study and Prevention of Tuberculosis established (National TB Association, 1918); SC Chapter established in 1917, Richland Anti-Tuberculosis Association

1908: Charleston established a TB Clinic

1909: State Park Laboratory was established

1910: General Assembly was asked specifically for funds for TB care

**Certificate of  
Incorporation for  
the Richland Anti-  
Tuberculosis  
Association, 1917**



1912: Dr. James Hayne: Spoke to the General Assembly about the need for tuberculosis control

1913: Daughters of the Holy Cross of Trinity Episcopal Church set aside \$500 for a TB Camp. Became Camp Ridgewood when the Richland County Delegation to the General Assembly added \$1,000 - a tent encampment initially

1914: \$10,000 was set aside to establish the South Carolina State Sanatorium (cottages) – opened in 1915



**Daughters of the Holy Cross of Trinity Episcopal Church, Columbia, South Carolina**



**Ridgewood Camp Dairy Barn**



Progressed from tents to wooden buildings



**Cottage**





Unidentified Building at Ridgewood San



1915: Established TB Camps all over SC –  
Hopewell in Greenville, Camp Alice in Sumter,  
Pinehaven in Charleston, Marion County Camp

1918: Greenville and Richland had started TB  
Clinics

State Board of Health hired 7 public health nurses;  
Ruth Dodd and Helen Fenton were the first TB  
public health nurses in South Carolina. They were  
to teach the TB patients how to take care of  
themselves and prevent others from getting TB

### First Public Health Nurses





## 1920s

Tuberculosis continued to be the leading killer of young adults, accounting for 29% of deaths in that age group. There were 5,748 cases reported in SC and many more not reported. There was no effective treatment. Public health efforts continued with basic self care, quarantine and public education

Treatment at the Sans usually lasted about 3 years

X-rays were available but still very expensive



South Carolina Board of Health



Shortages of beds resulted in bringing cottages to homes for quarantine purposes



A movable cottage ready for use



South Carolina Board of Health

## 1930s

Funding for TB Activities was greatly reduced but restored over the decade

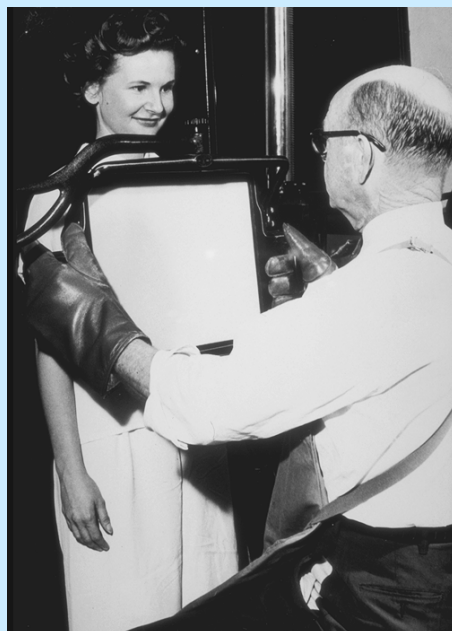
Public health nurse workforce grew and continued to teach patients basic care and quarantine methods – clinics and homes

1936: Construction started on a new, modern TB San. Opened in 1938 with 268 beds; hospital like facility for TB Patients; x-rays were less expensive and used more

Due to long waiting lists for beds in the Sans, treatment was limited to 18 months except for special circumstances



South Carolina Board of Health



South Carolina Board of Health



National Library of Medicine

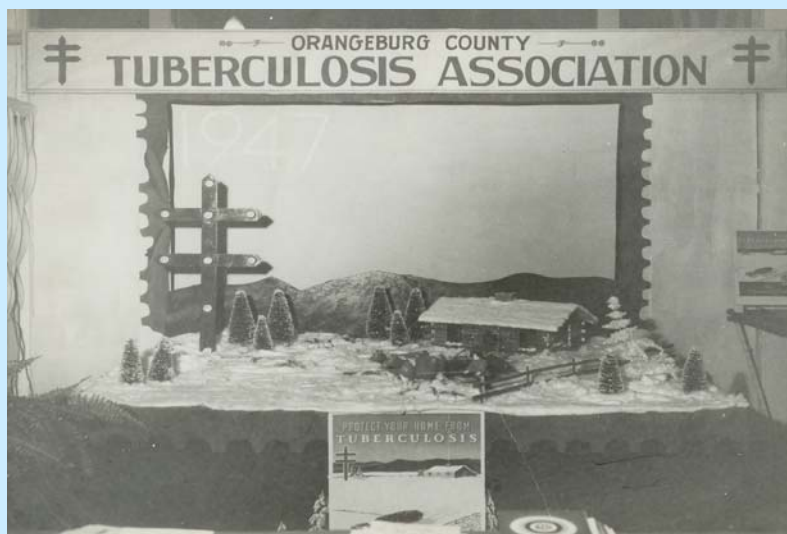


## 1940s

Over 25,000 tuberculosis patients were treated in 1945, with 48,000 clinic visits and 1,230 admissions to the state san

With no drugs available yet, the waiting list for a bed at the san continued to be long

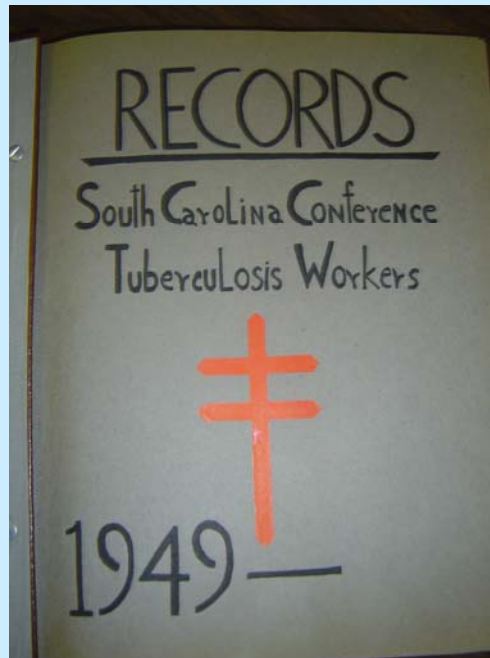
The SC Anti-Tuberculosis Association continued to be very active in TB Control Activities



**South Carolina State Fair Exhibit, 1948**



South Carolina  
Tuberculosis  
Workers held an  
annual conference  
to stay abreast of  
the latest  
information.  
Conferences were  
sponsored by the  
ALA and held at a  
different location  
around the state.



## 1950s

Tuberculosis treatment changed dramatically with the introduction of anti-tuberculosis medications:

1944 - Strep

1948 - PAS

1951 - INH

1952 - PZA

These drugs saved thousand of lives and caused a rapid drop in the spread of TB

In 1953, the State Park TB Sanatorium became a separate agency from the Board of Health

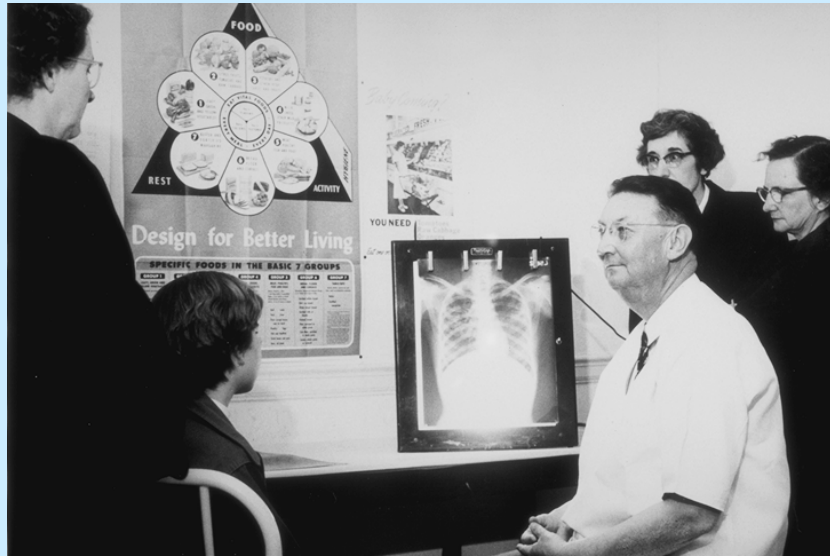
1953: National surveillance of tuberculosis cases began. South Carolina reported 1,117 cases that year. In 2006, SC reported 222 cases.

County Health Departments were established in every county in the state offering TB clinic services. Public health nurses continued to visit homes as well.

Mass x-ray clinics were held to identify unknown cases.



South Carolina Board of Health



South Carolina Board of Health



South Carolina Board of Health



Tuberculosis Workers (Register Workers or Secretaries) continued to meet annually, but with a focus on collecting the appropriate information for reporting surveillance data to CDC.



## 1960s

With drug therapy now, length of time in the San was shortened to a few months then discharged home for completion of treatment

1964: South Carolina started an INH preventive therapy program in the health department

1968: EMB was added and TB San was returned to the Board of Health

Plaque erected with the dedication of the Richland TB Association's new building in 1963. The building currently houses the offices of the Richland TB Association (formerly the Richland Anti-Tuberculosis Association) and the American Lung Association - Southeast Region, Columbia office.





Concurrent Resolution congratulating the South Carolina Tuberculosis Association on it's 50<sup>th</sup> Anniversary!

MAR 31 1967

(Please Furnish Original Attached to This, with Six Carbon Copies Loose)

317

### Concurrent Resolution

By Mr. GARRISON

A Concurrent Resolution

TO CONGRATULATE THE SOUTH CAROLINA TUBERCULOSIS ASSOCIATION ON ITS FIFTIETH ANNIVERSARY, AND TO COMMEND ITS EFFORTS IN TUBERCULOSIS CONTROL AND PREVENTION ON BEHALF OF CITIZENS OF SOUTH CAROLINA.

IN THE SENATE

DATE MAR 28 1967 ORDERED Adopted

Introduced \_\_\_\_\_

Considered \_\_\_\_\_

" \_\_\_\_\_

" \_\_\_\_\_

" \_\_\_\_\_

SENT TO HOUSE

By Order of the Senate [Signature] Clerk

IN THE HOUSE

DATE MAR 29 1967 ORDERED Adopted

Introduced \_\_\_\_\_

Considered \_\_\_\_\_

" \_\_\_\_\_

" \_\_\_\_\_

" \_\_\_\_\_

CONCURRED IN as Amended and RETURNED TO SENATE By Order of the House [Signature] Clerk

IN THE SENATE MAR 29 1967

House Amendments agreed to and a message sent accordingly

Concurrence of House RECEIVED AS INFORMATION

[Signature] Clerk

Copies Sent to \_\_\_\_\_







South Carolina Board of Health

## 1970s

- 1971: Rifampin was introduced for treatment
- 1972: The South Carolina Board of Health and the Pollution Control Authority merged to form the South Carolina Department of Health and Environmental Control
- 1976: Offered the first TB Today! Course in Columbia, October 12-15 with 44 participants – all health department staff; Offered annually thereafter
- 1976: Nurse Dispensing Act for Public Health Programs passed allowing PHNs to dispense drugs under a physicians order for public health programs

**South Carolina's TB Today! Course focuses on a practical approach to the current body of knowledge on which the treatment and control of tuberculosis is based.**



**The workshop is intended primarily for nurses and physicians who have major responsibility for tuberculosis control activities in their respective health care settings, but other providers are welcome.**

1976

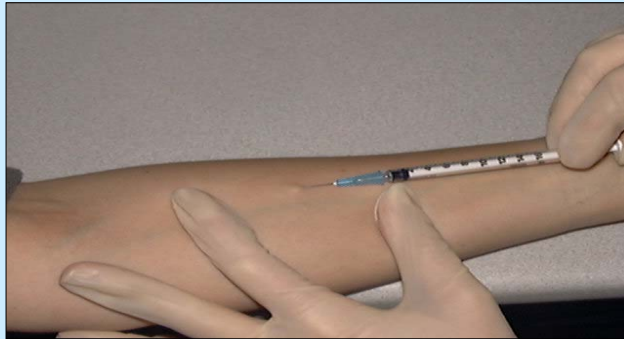
Began screening inmates upon entry to  
South Carolina Department of Corrections



In 1979, the Hayne Building, the new State Public Health Laboratory,  
was completed and occupied

## 1980s

**By 1980s, DHEC stopped the mass x-ray screenings. The tuberculin skin test became the “routine” part of the diagnostic work-up.**



## **Supervised Intermittent Therapy “SIT”**

In 1981, funds were received to add public health nurses in several counties to start a Supervised Intermittent Therapy or “SIT” program. These nurses conducted visits to the patients wherever they were to administer their tuberculosis medications. Patients were placed on an “intermittent” rather than a daily regimen and medication bottles were no longer given to the patients to take on their own.

At School



At Work





**At Home**



**Wherever....**







*In The Beginning, There Were Crickets.....*




In concert with ALASC, DHEC developed and started the Enablers and Incentives Program. The funding was provided by the ALASC.



## *Enablers and Incentives*



AMERICAN  LUNG ASSOCIATION  
of South Carolina

Division of Tuberculosis Control,  
South Carolina Department of  
Health and Environmental Control

Simple items, such as favorite foods.....



Pizza Party.....



Reading a book.....

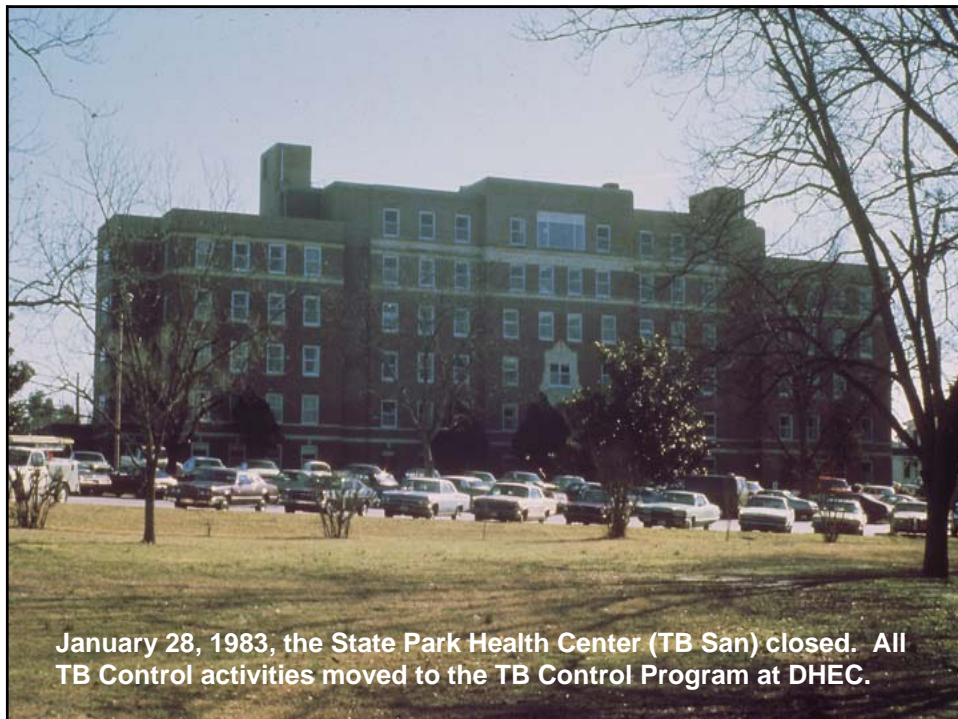


A cool drink on a hot afternoon.....





**A birthday cake.**



**January 28, 1983, the State Park Health Center (TB San) closed. All TB Control activities moved to the TB Control Program at DHEC.**

1984: With the TB San closing but the continued need for hospitalization of TB patients on occasion, the TB Control Division established a Regional TB Hospitalization Program. This program provided a mechanism for persons with TB or suspected of having TB to be hospitalized when/if this is the most appropriate method for workup and/or treatment. Contract with various hospitals and physicians around the state for this service.

1986: Completed a computerized Central TB Case Register – mainframe based and still in use today!

**In 1985, the TB Control Program hired the first Social Worker for TB Services, providing social work service statewide.**



**In 1986, the requirement for annual tuberculin skin testing and chest x-rays for school employees was stopped. A TST is required only upon employment.**



## 1990s

Continued to expand SIT, but switched terminology to “DOT” or Directly Observed Therapy.

Worked with Health Licensing to revise the Nursing Home Regulations to require a TST prior to admission.

Worked closely with the South Carolina State Board of Nursing to develop policies and procedures for the use of Unlicensed Assistive Personnel (UAPs) to conduct DOT visits under the supervision of the registered public health nurse.

Assisted the South Carolina Department of Corrections with implementation of annual screening of employees.

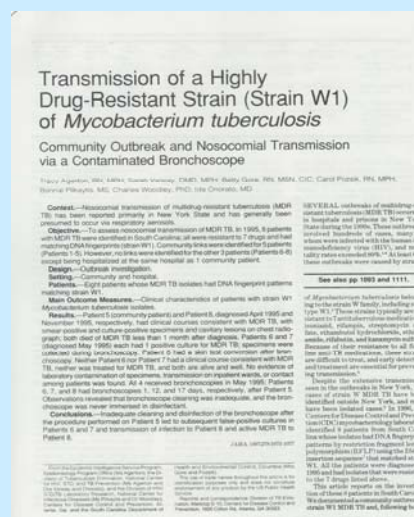


**Unlicensed Assistive Personnel (UAP) is a non-licensed individual who receives a specific training curriculum. The UAP learns how to assist the client to conduct a self-assessment for signs/symptoms of adverse reactions to the medications and if appropriate, hands the pre-dispensed medications to the client and observes the client self-medicate. Specific forms were developed for this activity.**



## Strain W

**South Carolina experienced a community outbreak of 5 cases of MDR TB (Strain W) and a nosocomial transmission involving a contaminated bronchoscope in a hospital setting (4 cases). All were resistant to 7 drugs and had matching fingerprints.**



**The Tuberculosis Today! Course was expanded to twice annually to accommodate the large volume of applicants. It is offered in the Spring and Fall and is held at Hickory Knob State Park in McCormick, South Carolina. The facility offers conference center, motel rooms, catering and restaurant facilities all on-site. The course is supported for in-state residents by the ALASE.**



**Advanced TB Today! was begun in 1997 for experienced TB Program Staff and is offered every other year, again with support from ALASE.**

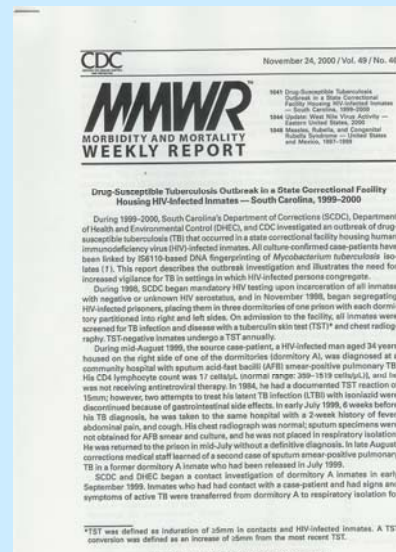


Innovative ways were developed to assist experienced TB staff maintain current and learn new knowledge and skills about tuberculosis. “TB Jeopardy” is one example.



1999

Outbreak of tuberculosis occurred in a prison facility that housed all HIV inmates in 3 of the 6 dorms. Resulted in 31 cases in the prison and 1 community case. Two additional cases have developed since. RFLPs matched on all 19 with specimens.



## 2000+

Budget cuts are the crux of the 2000 years. The State office has lost 2 positions to budget cuts and numerous staffing changes!

Drug levels

Strain W case 10 years later

Administration of IV Drugs for treatment

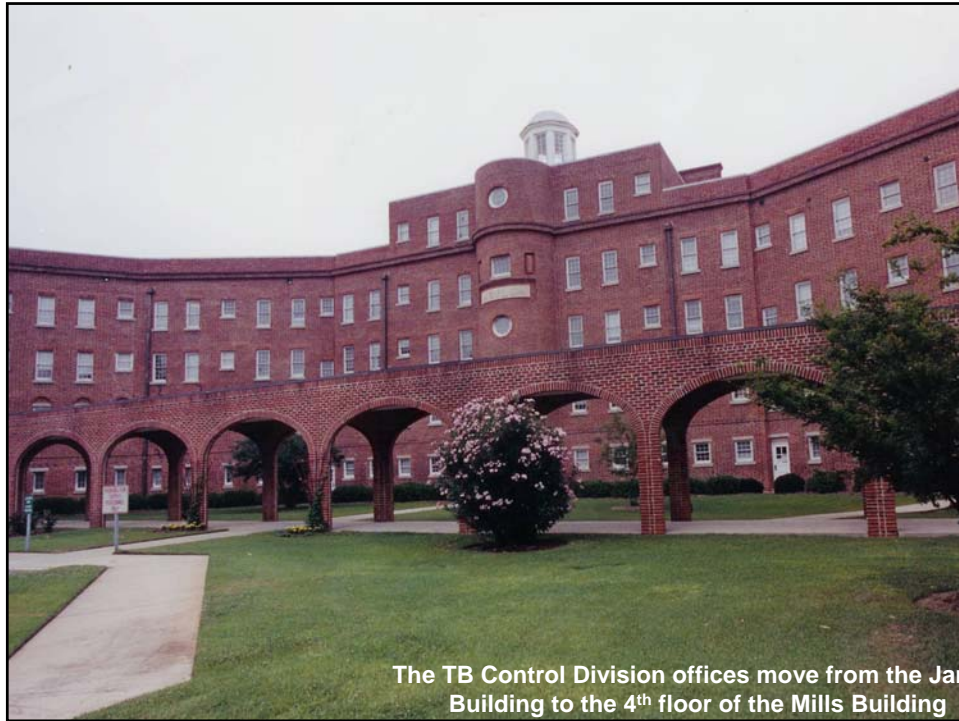
UAP IV DOT

XDR

**Began drawing and sending specimens to National Jewish Medical Center in Denver, Colorado for drug level analysis on all retreatments and slow converters. Policy and procedure was established to assist TB staff as they had to make arrangements and plan for the drawing and shipping of the specimens. Information has been valuable in obtaining the correct dosing on these patients.**







Tuberculosis Contact Investigation System (TBCIS) is nearing completion (Sept.). Will provide a mechanism to evaluate the contact investigation process and generate aggregate reports. Begun as laptop based system, but has been converted to web-based system.

Home | Data Entry | Search | Reports | Add Excel Data | Logout

Current User: Kathryn Dunbar  
Jurisdiction: PeeDee

### View / Edit Case Information

Patient Name: Aalaz, Kathryn L. Pt. ID #: 12345  
Initial Interviewer: Flower, Joe Add New Interview Date: 07/04/2005 Save Cancel Reset

**Case Demographics** Disease Information Case Contacts

**Case Information**

Case Type: NOT Tuberculosis \*required Date Status Determined: 7/11/05

Last Name: Aalaz First Name: Kathryn Middle Initial: L  
DOB: 08/20/1977 Sex: Female Pt. ID #: 12345  
Ethnicity: Not Hispanic or Latino Race: White Birth Country: Canada

**Case Location**

Street: 123 Test St  
State: SC City: Columbia County: Darlington County  
Zip: 29208 Phone: 803-111-2222 District: PeeDee

See case record for additional locating information.

**Comments**

Comments: Test



**2004 ended with the retirement of Carol Pozsik, Division Director since 1982. This was followed by the retirement of Joe Kinney, Social Work Consultant.**

**2006 produced the retirements of JoAnn Palmer, Interim Director (formerly Assistant Director) and Betty Gore, Nurse Consultant in June and Joan Squitieri, Register Supervisor in September.**



**Special Thank You to Sharon Helps, ALASE!**

**Thank You**