

# WINDOWS IN TIME

THE NEWSLETTER OF THE UNIVERSITY OF VIRGINIA SCHOOL OF NURSING ELEANOR CROWDER BJORING CENTER FOR NURSING HISTORICAL INQUIRY  
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COURTESY OF DIGITAL COLLECTIONS AND ARCHIVES, TUFTS UNIVERSITY

Volunteer teacher with well children in kindergarten class on the Boston Floating Hospital ship's open air deck, ca. 1906.

## FROM THE DIRECTOR

### *Historical Perspectives on Fresh Air, Sunshine, and Public Health*

As the pace of the academic year intensifies and the holidays approach, it is all too clear that the days are growing shorter and the opportunities for taking advantage of leisurely hours outside are fewer. Occasionally, nostalgia for those long days of June and July sets in. While we cannot take you back to summer, this issue of *Windows in Time* provides you with an opportunity to escape into history and to examine the health benefits of fresh air and sunlight, and the role nurses played in helping their patients achieve those advantages. We highlight nurses' role in the utilization of fresh air, sunshine and nutrition to both heal and promote health, describing their work with children receiving heliotherapy in Switzerland, as well as their days with those who boarded floating hospitals for excursions on Boston Harbor. As you read, consider how the therapies the nurses advocated in the late 19th and early 20th centuries facilitated Vitamin D absorption, enhanced well-being, and promoted growth and development in adults and children alike.

Central to this publication is Dr. Barbara Brodie's work on nurses' role in heliotherapy for children with tuberculosis. In it, she describes how Swiss physician Auguste Rollier placed children and adults in direct sunlight for extended periods, even in chilly northern climates of Switzerland, to heal tubercular lesions with light and

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*Windows in Time* can be found on EBSCOhost and Gale Group, Inc. databases.

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Vitamin D. It is a fascinating article, describing the therapeutic protocol that Rollier advocated and emphasizing the nurses' physical and emotional care of children isolated from their parents during long courses of treatment. I hope you enjoy it!

Another feature emphasizing the use of fresh air and sunshine, as well as health education for mothers of sick children, is the "Snippets" feature on the Boston Floating Hospital. Once a rented excursion boat used to take mothers and sick babies for a day's outing on Boston Harbor, the Floating Hospital is now a permanent building within Tufts New England Medical Center. While some has been documented about the hospital ship itself, little has been written about the nurses' role on the barge as they sailed out to harbor to escape the steamy summers of East Boston. The short article on page 13 is an attempt to fill that gap in our history.

As you will note on page 5, in addition to Barbara Brodie's talk on heliotherapy in September, other history forums this fall include a presentation by Brodie Fellow Jaime' Lapeyre on solutions to the problem of finding public health nurses after World War I, and a panel on the history of school nursing in Virginia. The latter, led by Dr. Mary Gibson and including a paper written by PhD student Bridget Houlahan, culminates with a discussion of Dr. Doris Glick's development of a nurse-run school health clinic in Greene County in the 1990s. After that forum we invite you to join us in a reception for Doris Glick as we formally receive her collection.

In concert with the theme of historical perspectives on nurses' role in health promotion, I'd like to draw your attention to the Center's window display this fall. Set in New York City at the turn of the century, the window highlights a nurse teaching a young immigrant mother how to save her infant from the deadly "summer diarrhea." First and foremost advocating breast-feeding, but also teaching mothers who could not breast-feed to keep milk on ice between feedings and to wash and sterilize bottles, nurses played a key role in promoting infant welfare. I hope you will get a chance to see it!

This editorial is the last I will write as Director of the Bjoring Center. My tenure as Director has been a joyful and exciting experience, but I am ready to step down and assume a supporting role as Associate Director. I am turning over the Center's leadership to my close friend and colleague, Barbra Mann Wall, PhD, RN, FAAN, who will begin serving as Director in December of this year. On page 3, Barbara Brodie introduces Dr. Wall and expresses our faith in her ability to lead the Bjoring Center to a new level of scholarship and productivity. I hope you will wish Barb a warm welcome when you see her!

All my best,  
Arlene W. Keeling



*The Eleanor Crowder Bjoring Center for Nursing Historical Inquiry (ECBCNHI), established at the University of Virginia in 1991 to support historical scholarship in nursing, is dedicated to the preservation and study of nursing history. The development of advanced clinical nursing practice, and the clinical specialty organizations that represent the various practices, is a major focus of the Center. The goals of the Center include the collection of materials, the promotion of scholarship, and the dissemination of historical research findings.*

## Barbra Mann Wall

It is with great pleasure that we introduce Barbra Mann Wall to the Eleanor Crowder Bjoring Center for Nursing Historical Inquiry. Barbra has been appointed to the UVA School of Nursing faculty as the Thomas A. Saunders III Professor of Nursing. In December 2015 she succeeds Arlene Keeling to become the third director of the Center for Nursing Historical Inquiry; Arlene will become the Center's Associate Director. Barbra comes to us from the University of Pennsylvania School of Nursing where she was an Associate Professor and the Acting Director of the Barbara Bates Center for the Study of Nursing History.

Dr. Wall holds a bachelor's in nursing degree from the University of Texas at Austin, a masters of science degree from Texas Woman's University, and a PhD in history from the University of Notre Dame.

A creative researcher and productive scholar, Barbra is the author of three noted books and numerous articles and book chapters. Her award winning first book, *Unlikely Entrepreneurs: Catholic Sisters and the Hospital Marketplace, 1865–1925*, explored the major role that private and public hospitals played in helping the nation meet the health needs of its diverse and expanding population.

In two of her more recent books, *American Catholic Hospitals: A Century of Changing Markets and Missions* and *Into Africa: A Transnational History of Catholic Missions and Social Change*, Barbra continued her exploration of the nurse's role in creating needed medical facilities and new health policies that



enriched the lives of citizens. She has also co-authored with Arlene Keeling two books on the role of nurses in disaster, and they are currently exploring new joint publication endeavors.

In addition to Barbra's impressive intellectual talents as one of the nation's leading nursing history scholars and educators, she brings a charming and gracious personality to the Center.

We, the faculty and staff of the Center for Nursing Historical Inquiry, are delighted to welcome Barbra to the University, the School of Nursing and to the Center! We look forward to working closely with her as we continue to fulfill the center's mission as a premier international nursing history research facility. ■

—**Arlene Keeling, John Kirchgessner, Mary Gibson, Barbara Brodie, and Linda Hanson**

## Congratulations

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Center Associate **Anne Z. Cockerham**, PhD, CNM, WHNP-BC, CNE, was named Associate Dean for Academic Affairs at Frontier Nursing University and was selected for the American Association of Colleges of Nursing (AACN) Leadership in Academic Nursing Program (LANP).

On June 1, 2015 **Rebekah L. Carmel** successfully defended her dissertation

“Over the Drape: Olive Berger and ‘blue baby’ anesthesia, 1944–1954”. Dr. Carmel's dissertation examined the work of Olive Berger and the impact of technology on nurse anesthetists' practice in the 1940s. Berger, who was a nurse anesthetist at Johns Hopkins hospital for 30 years, documented the care given to “blue babies” after they underwent the Blalock procedure, an unprecedented

technique for performing infant heart surgery pioneered by Dr. Alfred Blalock. Congratulations, Dr. Carmel!

**Rebecca Coffin**, PhD candidate, was awarded the 2015 Barbara Brodie Scholar Award. The award, established by a group of nursing alumnae, supports doctoral nursing students' research. ■

## Center Productivity

### PRESENTATIONS

**Gibson, M.** “Nuts and Bolts of Planning and Displaying Archival Resources on the Web” (paper presented at the Southern Association for the History of Medicine and Science Conference, Jackson, Mississippi, March 14, 2015).

**Helman, M.** “When Do the Little Dears Give Their Next Performance?: Ethics and Nursing Care in the Infant Incubator Exhibit at Chicago’s Century of Progress Exposition (1933–1934)” (paper presented at the Southern Association for the History of Medicine and Science Conference, Jackson, Mississippi, March 13, 2015).

**Keeling, A.** “Nurses, Migrant Workers, and the Great Depression, 1935–1941” (paper presented at the Southern Association for the History of Medicine and Science Conference, Jackson, Mississippi, March 13, 2015).

**Milbrath, R.** “Monica, the Whole World Knows We’re at War’: The Nurses of Pearl Harbor, Hickam Field Hospital” (paper presented at the Southern Association for the History of Medicine and Science Conference, Jackson, Mississippi, March 14, 2015).

**Sell, L. B.** “Power of Partnerships: How Public Health Nurses Partnered to Improve Access to Care for Blacks in the South in the 1930s” (paper presented at the Southern Association for the History of Medicine and Science Conference, Jackson, Mississippi, March 13, 2015).

### PUBLICATIONS

**Brodie, B.** “‘Hurting and caring’: Nursing burned children in the Chicago School fire disaster, 1958.” In *Histories of Nursing Practice*, edited by G. Fealy, C. Hallett and S. Malchau Dietz, 69–81. Manchester, UK: Manchester University Press, 2015.

Schminkey, D. L. & **A. Keeling.** (2015). “Frontier nurse-midwives and antepartum emergencies, 1925 to 1939.” *Journal of Midwifery and Women’s Health* 60, no. 1 (2015): 48–55.

**Keeling, A. and B. Wall,** eds. *Nurses and Disasters: Global, Historical Case Studies*. New York, NY: Springer Publishing Company, 2015.



UVA presenters at the Southern Association for the History of Medicine and Science Conference, March 2015.

**Kirchgessner, J., A. Keeling and M. Gibson.** “Nurses in schools, coal towns and migrant camps: Bringing healthcare to rural America, 1900–50.” In *Histories of Nursing Practice*, edited by G. Fealy, C. Hallett and S. Malchau Dietz, 180–199. Manchester, UK: Manchester University Press, 2015.

**Maling, B.** “The Bar Harbor Fire of 1947, Bar Harbor, Maine (USA).” In *Nurses and Disasters: Global, Historical Case Studies*, edited by A. Keeling & B. Wall, 201–227. New York, NY: Springer Publishing Company, 2015.

**Milbrath, R.** “The Bombing of Pearl Harbor, Hawaii, December 7, 1941.” In *Nurses and Disasters: Global, Historical Case Studies*, edited by A. Keeling & B. Wall, 145–167. New York, NY: Springer Publishing Company, 2015. ■

## Hold the Date!



Transition reception to thank **Arlene Keeling** for her leadership of the Eleanor Crowder Bjoring Center for Nursing Historical Inquiry and to welcome **Barbra Mann Wall** as the Center’s new Director.  
December 1, 2015  
5–6:30 PM  
McLeod Hall lobby and Bjoring Center  
All are invited!



# NEWS & OPPORTUNITIES

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## IN NURSING AND MEDICAL HISTORY



THE THIRD AGNES DILLON RANDOLPH INTERNATIONAL NURSING HISTORY CONFERENCE AT THE UNIVERSITY OF VIRGINIA, CHARLOTTESVILLE, VIRGINIA  
MARCH 11–12, 2016

In recognition of the diversity and quality of nursing scholarship across the world, the University of Virginia School of Nursing Eleanor Crowder Bjoring Center for Nursing Historical Inquiry is hosting the Third Agnes Dillon Randolph International Nursing History Conference. The conference will be held at the University of Virginia School of Nursing.



The keynote address, “Mary Breckinridge, Steady in the Saddle: Leadership and the Frontier Nursing Service,” will be presented by Anne Z. Cockerham, PhD, CNM, WHNP-BC, CNE, Frontier Nursing University Associate Dean for Academic Affairs, Bjoring Center Associate and Randolph Award recipient.

Further information is available on the conference website: [www.nursing.virginia.edu/research/cnhi/2016-randolph-conference/](http://www.nursing.virginia.edu/research/cnhi/2016-randolph-conference/) ■

Anne Z. Cockerham

2015/2016  
Nursing History  
Forums  
*McLeod Hall #5060*  
*Noon–1 p.m.*

**September 29, 2015**

Children of the Sun: Heliotherapy and Tubercular Children  
*Barbara Brodie, PhD, RN, FAAN*

**October 20, 2015**

‘Generalised nursing’: the solution to the difficulty of Public Health work?  
*Jaime Lapeyre, PhD, RN*  
Lecturer, University of Toronto  
2015 Brodie Fellow

**November 11, 2015**

The Evolution of School Nursing  
*Panel Presentation*

**February 16, 2016**

“A Room with a View: Using Nature in the Treatment of the Mentally Ill. St. Elizabeths Hospital, 1852–1900”  
*Beth Hundt, MS, APRN, NP-C, ACNS-BC, CCRN-CSC, UVA PhD Student*

## Conferences

### **American Association of the History of Medicine**

Minneapolis, Minnesota

April 28–May 1, 2016

Additional information: [www.histmed.org](http://www.histmed.org)

### **Cultures of Harm in Institutions of Care: Historical & Contemporary Perspectives**

April 15–16, 2016

Birkbeck, University of London, England

Additional information:

[www.bbk.ac.uk/trauma/events/](http://www.bbk.ac.uk/trauma/events/)

### **The Southern Association for the History of Medicine and Science**

Las Vegas, Nevada

March 17–19, 2016

Additional information: [www.sahms.net](http://www.sahms.net)

### **Victorian Studies Association of Western Canada 2015 Conference**

“Victorian Intimacies”

April 22–23, 2016

Winnipeg, Manitoba, Canada

Additional information:

[web.uvic.ca/vsawc/vsawc-conferences/2016-conference/](http://web.uvic.ca/vsawc/vsawc-conferences/2016-conference/)

## Call for Applications

### **The American Association for the History of Nursing**

(AAHN) offers four awards for completed research, each presented annually at the Fall Nursing History Conference. Only AAHN members are eligible to apply for these awards. Deadline for award submissions is May 15 of each year.

**Teresa E. Christy Award**— to encourage new nursing history investigators, and to recognize excellence of historical research and writing done while the researcher was in a student status.

**Lavinia L. Dock Award**— to recognize outstanding research and writing produced by an experienced scholar in nursing history who submits a book

**Mary Adelaide Nutting Award**—to recognize outstanding research and writing produced by an experienced scholar in nursing history who submits, most often, a post-doctoral research manuscript or article.

**Mary M. Roberts Award**—to recognize outstanding original research and writing in an edited book of nursing history.

Additional information: [www.aahn.org/awards.html](http://www.aahn.org/awards.html)

## Calls for Abstracts

### **American Association for the History of Nursing**

September 22–25, 2016

Chicago, Illinois

Abstracts due January 31, 2016

Additional information: [www.aahn.org](http://www.aahn.org)

### **American Holistic Nurses Association**

May 31–June 5, 2016

Bonita Springs, Florida

Abstracts due October 15, 2015

Additional information:

[www.ahna.org/Conference/Request-for-Proposals](http://www.ahna.org/Conference/Request-for-Proposals)

### **Canadian Association for the History of Nursing**

“Brains, Guts and Gumption:

**Historical Perspectives on  
Nursing Education, Practice and  
Entrepreneurship”**

June 16–18, 2016

Vancouver, Canada

Abstracts due January 31, 2016

Additional information:

[cahn-achn.ca/annual-conference/](http://cahn-achn.ca/annual-conference/)



## Additions to the Bjoring Center

HENRY K. SHARP, PhD

Access to healthcare—compassionate, efficient, high-quality healthcare—is a critical component of America’s ongoing public health policy debate. The issue is not a new one, of course, and three recently accessioned or expanded collections here at the Bjoring Center highlight different approaches to the topic across the twentieth century.

In November, the Center will host a reception ceremony for an important manuscript donation concerning a range of topics related to access to healthcare. The collection comes to us from UVA nursing professor, emerita, Doris F. Glick. When she joined the Virginia faculty in 1989, Dr. Glick set about designing a nursing clinic program to provide primary care and referrals to three distinct, traditionally underserved populations in Charlottesville and vicinity. The U.S. Department of Health and Human Services awarded Dr. Glick a five-year Public Health Services grant in 1993, and along with significant contributions from other sources, Glick established Primary Care Nursing Clinics at the Westhaven general public housing complex and at Crescent Halls, a residential

facility for the elderly and disabled, both near downtown Charlottesville. Soon afterward, Glick successfully negotiated with the Greene County Public School System to create the “Health Cottage,” a facility offering healthcare for school-aged children from a largely rural environment north of Charlottesville. Patient cohorts for the three clinics thus crossed the boundaries of race, gender, age, ability, and urban/rural contexts.

Dr. Glick’s nursing clinic initiative confronted the healthcare availability issue across these underserved populations with an organizational framework that brought nursing care out of distant, centralized facilities to the patients themselves in their local environment, and—of equal importance—to populations who tended to use hospital emergency facilities for primary care, if they sought care at all. Nursing students worked with clinical instructors and staff, gaining significant real-world experience. In a word, the program was direct, even simple in conception, but with quite sophisticated and comprehensive implications for the structure, management, and cost of American healthcare. The clinics continued in operation until 2000, and the lessons still have currency for our healthcare crisis deliberations.



UVA School of Nursing students at the Westhaven Clinic.



Public Health pamphlet, 1936.

Two additional donations made to the Bjoring Center this year offer similar insights from earlier in the twentieth-century. Nancy Milio has given more documentation to supplement her fascinating collection opened to researchers in 2011. Readers may recall that Dr.

Milio served as the organizing catalyst for the Moms and Tots Center, a community-based and staffed clinic and day-care center in inner-city Detroit—a facility spared destruction in the city’s devastating 1967 riots, precisely because of the established community involvement in management and organization of the Center and its services.

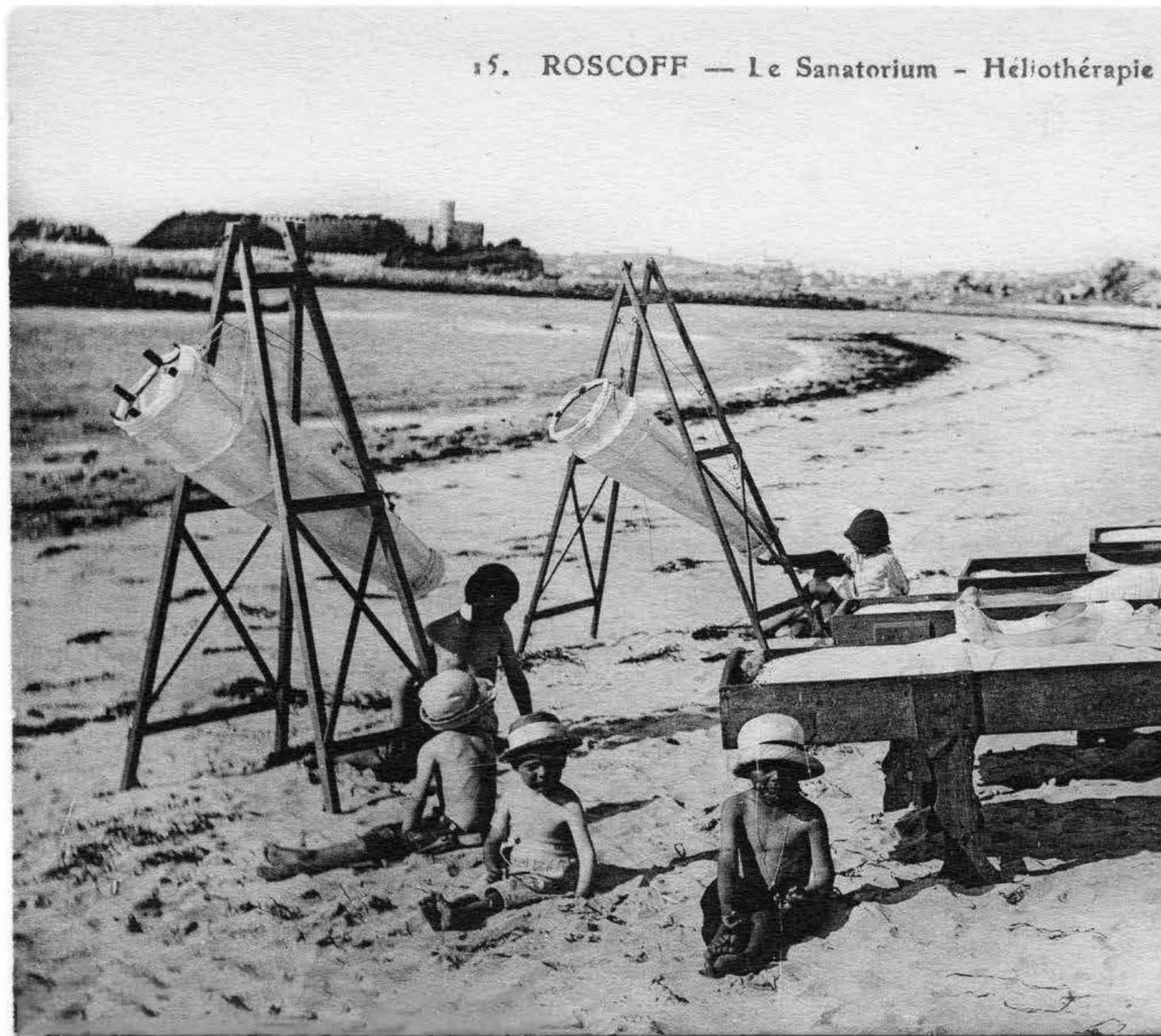
The other donation supplies additional information about the activities and education of Caroline H. Benoist (1896–2000), a public health nurse whose career spanned the teens to the 1940s. Ms. Benoist studied and worked initially in Chicago and Nashville, but spent the great majority of her career in Sunflower and Pike Counties, Mississippi, where she was one of the first public health nurses in the state. She trained and supervised teams of African-American midwives and served on the healthcare frontline for the rural laborers and farm workers of the Delta, not too many generations removed from antebellum life and conditions.

The profession of Nursing has a critical role to play in expanding access to primary care. These collections demonstrate just how significant that role has been to our nation’s public health. ■



# Children of the

## *Heliotherapy and Tubercular Children*





# Sun

BY BARBARA BRODIE, PhD, RN, FAAN

ASSOCIATE DIRECTOR ELEANOR CROWDER BJORING CENTER FOR NURSING HISTORICAL INQUIRY

The importance of the sun to humans has been recognized for thousands of years. Its ability to provide sunlight, warmth, and a sense of well-being coupled with its power to grow food allowed civilization to flourish.

Evidence exists that in ancient Egypt, Greece, India, and Rome early healers recognized the sun's tremendous power and attempted to harness it to cure diseases.<sup>1</sup> However, it would be in the late 1890s before the medical profession seriously investigated whether the sun's rays possessed an ability to heal. The pioneer physicians who studied this question would develop a new medical treatment modality known as light therapy, which included heliotherapy (sun light) and phototherapy (artificial light-ultra light). This therapy had proved effective in treating several forms of tuberculosis, a lethal disease that had plagued humankind for centuries.<sup>2</sup>

The leading advocates for light therapy were two European physicians, Danish Niels Finsen (1860–1906)<sup>3</sup> and Swiss Auguste Rollier (1874–1954), and an American, John Harvey Kellogg (1852–1943).<sup>4</sup> They believed that heliotherapy would lead to better outcomes for the children who suffered from scrofula (bone and skin) tuberculosis than what was currently available. Surgeons of the era routinely treated these children by excising extensive portions of their infected tubercular bones, but this intervention often left the children uncured, deformed, and crippled.<sup>5</sup>

Rollier and Kellogg maintained that heliotherapy, under the direction of skilled physicians, could heal the patients' tuberculosis and help them regain their vitality and lives. Although both Rollier and Kellogg operated their own sanatoriums and used heliotherapy, Kellogg considered sun therapy as part of his natural therapeutic regimen of



Postcard, c. 1925. Courtesy of Casas-Rodríguez Collection.

<sup>1</sup>J. Potts, "The effects of sunlight on man," *Phi Delta Kappa* 14 (1931): 29–32.

<sup>2</sup>S. Carter, "The Medicalization of Sunlight in the Early Twentieth Century," *Journal of Historical Sociology* 25 (2012): 83–105.

<sup>3</sup>Niels Finsen was awarded the Nobel Prize for Medicine in 1903 for his discovery of phototherapy and artificial light therapy.

<sup>4</sup>T. Woloshyn, *Our Friend, the Sun: Images of Light Therapeutics from the Osler Collection*, c. 1901–1944. Exhibit Booklet—January to June 2011, Osler Library of the History of Medicine. (McGill University Press, 2011), 1–3.

<sup>5</sup>O Bernhard, "The Need for Climatic Sanatoria for Indigent Patients Suffering from Surgical Tuberculosis," *Jersey State Medicine* 39 (1931): 333–34.



COURTESY OF THE SWISS NATIONAL MUSEUM. IMAGE #R0H-10-L1616767L

nutritious food, rest, and exercise.<sup>6</sup> For Rollier heliotherapy was a powerful therapeutic agent that acted like a bacterial surgical dressing, and it had proven successful in the cure of non-pulmonary tuberculum patients.<sup>7</sup>

In 1903, Dr. Rollier opened his first sun solaria to treat tubercular children in the town of Leysin, high in the Swiss Alps, and soon it began to attract tubercular patients from Europe. Rollier insisted that every child admitted to the solaria undergo a complete physical examination, including blood and x-ray exams, and an evaluation of how well the child could adjust to the altitude, cold air and sun therapy. From this information the medical staff developed individualized therapy plans that included sun baths, a diet rich in fats, grains, vegetables, and milk, plus planned exercise. The children's exposure to the sun and their reaction to the cold air, their temperatures, and physical activity were carefully timed and monitored.<sup>8</sup>

## Daily Treatment

When first admitted, the children required time to acclimate to the high altitude of the mountains, the cold air, and the intense sunlight. Many of the children were underweight, fatigued, and disfigured by large open sores and lesions. Each day after breakfast, the children were lightly dressed and placed by age in open porch rooms; their rolling beds were moved closer to open windows to allow them to be exposed indirectly to the sun and cold air.<sup>9</sup>

<sup>6</sup> J. Kellogg, *Light Therapeutics: a practical manual of phototherapy for the student and the practitioner* (Battle Creek: The Modern Medicine Pub. Co., 1927), 68–88.

<sup>7</sup> T. Woloshyn, "Patients rebuilt: Dr. Auguste Rollier's heliotherapeutic portraits, c. 1903–1944," *Medical Humanities* (2013): 38.

<sup>8</sup> A. Rollier, "Tuberculosis finds Cure in the Leysin Heliotherapy Clinics," *The Modern Hospital* 21 (1923): 255–260.

<sup>9</sup> A. Rollier, *Heliotherapy* (London: Henry Frowde and Holder Stoughton Publishers, 1923), 19–30.

After several weeks or months when their wounds had sufficiently healed and they were without fever, they were ready for their prescribed outside sunbaths to begin. Covered with a sheet and dressed in simple linen caps, short white pants and wearing dark glasses, the children were carefully exposed to direct sun rays. Throughout the day, the nurses, who were primarily responsible for implementing the physician's orders, carefully timed the length of light exposure on each part of the child's body. Beginning with their feet and slowly moving upward, the children's skin slowly tanned, soon taking on the highly desired copper tone appearance. With each passing week they grew physically and emotionally stronger. When considered strong enough, the physicians ordered the children out of bed and sent outdoors. Here, dressed in boots, sunglasses, short pants, and hats they engaged in a wide variety of physical exercises and play activities scheduled throughout the year. These year-round activities were possible because the average day time temperature on the sunny mountain top was in the 70s for much of the year.<sup>10</sup>

Rollier believed that the sun's rays held therapeutic and revitalizing powers that could heal and restore the tubercular children's bodies. His early experience in treating sick children convinced him that other medical personnel needed to understand the power of heliotherapy, and to assure this would happen he became its leading advocate.<sup>11</sup> News of his success in healing tubercular patients spread across Europe and North America. *Time* magazine carried an article about the new therapy in 1923, the first year of its publication. In it was noted that Dr. Rollier and his colleagues had treated, over a twenty year period, 2,000 children with joint and bone tuberculosis with an 80 percent cure rate.<sup>12</sup>

Aware of the power of photographs to document the changes in the children's state of health, Rollier employed professional photographers to capture images of the children convalescing, playing, and exercising on the sun-drenched snowy mountain slopes of his sanatoria. With a keen appreciation



Auguste Rollier. Courtesy of the Royal Library; The National Library of Denmark and Copenhagen University Library.

CREATIVESCOMMONS.ORG/LICENSES/BY-NC-ND/4.0

<sup>10</sup> A. Rollier, "The Share of the Sun in the Prevention and Treatment Tuberculosis," *British Medical Journal* 2 (1922): 741–745.

<sup>11</sup> R. S. Hobday, "Sunlight Therapy and Solar Architecture," *Medical History* 42 (1997): 455–472.

<sup>12</sup> "Medicine: Heliotherapy," *Time Magazine* 1 (August, 1923): 19

of aesthetics and drama, the children were dramatically posed in various activities such as dancing or skiing that depicted their newly found energy, vigor, and health. Gone were the signs of their tuberculosis with its fatigue, anorexia, crooked backs, and open sores, and replaced, as historian Tania Anne Woloshyn notes, with images of attractive, healthy, plump, and happy children.<sup>13</sup>

Rollier included photographs in his many articles, books, lectures, and professional presentations because they demonstrated the ravages of the disease and the efficacy of heliotherapy. His articles appeared in medical and lay publications in Europe, the United States, Canada, and Australia thereby alerting professionals and the public to the wonder of heliotherapy in curing patients with skeletal and skin tuberculosis. Soon the numbers of patients coming to his solaria dramatically increased as did physicians seeking his advice on heliotherapy. Four new sanatoria were opened on the mountain to accommodate the new patients.

Throughout his long career (1903–1954) Rollier remained a leader in the field. He welcomed visiting dignitaries and international physicians to his solaria and clinics; traveled widely to present his work at international medical and nursing conferences; and authored medical texts on heliotherapy, as well as numerous journal articles published in the world's leading medical and nursing publications.<sup>14</sup>

## Spread of Heliotherapy

Although scientific evidence of how heliotherapy actually worked was still lacking, physicians, who could offer little to cure their seriously ill tubercular patients, believed that they should use it on their patients. Some physicians also used it to treat patients suffering from rheumatic fever in hopes that it might help them. The scientific discovery of vitamins, especially vitamin D found in sunlight and milk in 1923, further encouraged physicians to use



COURTESY OF THE SWISS NATIONAL MUSEUM, IMAGE #ROH-31-LM-1147672

heliotherapy in the care of their tubercular patients.

The use of heliotherapy was a challenge in geographic areas lacking long periods of sun light and warmth. Local physicians devised innovative ways to maximize the limited sunlight that was available. Renovating their hospitals to accommodate the care of children both in- and outdoors, installing large in-patients' rooms, and placing children on hospital roofs and outside porches were some of the strategies used to treat the children. To further expose the children to the positive effects

of fresh air and sunlight, the children's school classes were held outdoors, and when this was not possible, ultraviolet sun lamps were employed to provide the light indoors.<sup>15</sup>

## Role of Nurses

Nurses provided around the clock care to the tubercular children in the sanatorium and implemented the physicians' orders. Although little is documented about the qualifications of nurses caring for these chronically ill children or what the care consisted of, it is clear that the nurses liked their work, were clinically competent, and understood the developmental and medical needs of the children.

Two challenges the nurses faced were how to help the children adjust to the hospital's routines and how to entice the sick children, who were often irritable and undernourished, to eat. The children's lack of appetite and the fact that the hospital's food differed from what they were accustomed to added to the challenge. Milk was essential in treatment of tubercular children, and the physicians ordered for each child to consume at least one quart every day. This was an exceptionally large quantity of milk for any child to drink, let alone a child with little appetite. To help them drink their milk, it was served throughout the day, usually starting with a glass at 7 a.m. and others at 10 a.m. and 3 p.m., and at bedtime they were given a large glass of enriched eggnog. The nurses developed innovative ways to persuade the children to eat their nourishing diets. Any gain in the children's

<sup>13</sup> T. Woloshyn, "Kissed by the Sun": Tanning the Skin of the Sick with Light Therapies, 1890–1930," in *A Medical History of the Skin: Scratching the Surface*, J. Reinartz and K. Siena (London: Pickering & Chatto, 2013), 181–194.

<sup>14</sup> T. Woloshyn, "Patients rebuilt: Dr Auguste Rollier's heliotherapeutic portraits, c. 1903–1944," *Medical Humanities* (2013): 39–42

<sup>15</sup> S. Shulman, *Children's Memorial Hospital of Chicago* (Charleston, North Carolina: Arcadia Publishing, 2014), 42–44.



weights was viewed as a positive sign that their tuberculosis lesions were slowly healing. To involve the children in their own care, they were weighed every other day, and when a weight gain was noted they were praised and often rewarded with a gold star placed in their hospital records.<sup>16</sup>

To some degree, nurses were also responsible for the environment in which the children lived. To heal, the children were required to live months and sometimes years in a hospital/sanatorium. To add to their problems, they often came from poor families that lacked the resources needed to visit them, leaving the sick children alone in a strange place without the physical and emotional support of their parents and family.<sup>17</sup> The staff understood how difficult it was for the children to live in the sanatorium, so they designed it to be as homelike as possible. They created ways to lighten the monotony of the hospital's routines by providing the children with games, parties, holiday celebrations, plays, and movies throughout the weeks and months of their recuperation. The nurses also encouraged the children to develop friendships with other patients and staff. Besides the nurses, teachers, physical therapists, and social workers were part of the hospital's staff as were volunteers and visiting entertainers, and all attempted to enrich the children's lives.

To meet the children's need to be nurtured, the nurses and staff often served as their surrogate mothers, and this required them to be both gentle and, at times, to discipline them when they misbehaved. Nurses spent hours each day caring for them and listening to their questions and tales about their families and friends. They calmed them when they were upset, hurt, or crying by rocking them and reading stories to them.<sup>18</sup>

For many older children, however, the sanatorium was lonely and isolating, and they longed to be home among their family and friends. The staff worked hard to keep them occupied with activities that interested them and with their peers. Sometimes, in spite of the staff's best efforts, the families felt that they had to remove their disgruntled adolescent from the sanatorium to find other facilities closer to their homes.<sup>19</sup>



COURTESY OF THE SWISS NATIONAL MUSEUM, IMAGE #ROH-13-LM107674

## Ending of the use of heliotherapy

By the early 1930s, American physicians' enthusiasm for heliotherapy and sanatoriums began to wane. The claims of their success had not been substantiated in most medical facilities. Physicians agreed that sunlight, fresh air, and a nourishing diet improved the general

health of tubercular children, but it did not cure them of their tuberculosis. In addition, the nation's efforts to have cleaner communities through improvement in sanitation methods led to cleaner homes, food, and water and an overall improvement in the quality of life for many Americans. These changes ultimately led to a reduction in the numbers of tubercular children in the community.<sup>20</sup>

In addition, advances in medical science led to the discovery of an amazing new class of drugs—antibiotics. Penicillin and sulfonamides proved highly effective in treating many infections. In 1944 the discovery of streptomycin, the first antibiotic effective against mycobacterium tuberculosis, became available for clinical use. This was followed by the discovery of isoniazid in 1952 which, in combination with streptomycin, demonstrated that tubercular patients could be cured medically on an outpatient basis.<sup>21</sup> With the use of these new drugs, tuberculosis rapidly disappeared, and by the 1960s sanatoriums became relics of the past. At his death in 1954, Dr. Rollier's facilities were closed.

Sunlight is still used medically today for certain skin conditions, but it is no longer seen as a totally beneficent therapy. Dermatologists in the 1960s began to document the harmful effects of too much sun on the skin, and slowly the desire of people for dark tanned skin began to diminish.<sup>22</sup> Today we are much more aware of the negative effects of too much sunlight on the human body, but during the first half of the 20th century heliotherapy was believed to have helped cure thousands of patients with skeletal and skin tuberculosis. It also helped raise hopes that tuberculosis could finally be eliminated from the world. ■

<sup>16</sup> C. Staudohar, "Food, Rest, & Happiness: Limitations and Possibilities in the Early Treatment of Tuberculosis in Montana, Part II," *Montana: The Magazine of Western History* 48 (1998): 47–48.

<sup>17</sup> J. Lloyd, "Sun Treatment of Tuberculosis," *American Journal of Nursing* 25 (1925): 743–776.

<sup>18</sup> Marcellus, L. "Tiny Cripples and the Sunshine of Life: 15 years of Children's Nursing at Vancouver Island's Queen Alexandra Solarium 1927–1942," *Journal of Pediatric Nursing* 19 (2004): 411–16.

<sup>19</sup> C. Staudohar, "Food, Rest, & Happiness: Limitations and Possibilities in the Early Treatment of Tuberculosis in Montana, Part II," *Montana: The Magazine of Western History* 48 (1998): 51–52.

<sup>20</sup> H. Dowling, *Fighting Infections: Conquest of the Twentieth Century* (Cambridge, Massachusetts: Harvard University Press, 1977), 145–147.

<sup>21</sup> T. Dormandy, *The White Death: A History of Tuberculosis* (New York, NY: New York University Press, 2000), 340–351.

<sup>22</sup> Dormandy, 361–376.

## Nursing on the Boston Floating Hospital

ARLENE W. KEELING, PhD, RN, FAAN

In the late 19th century, in the over-crowded industrial cities of the northeast (before refrigeration and pasteurization of milk) “summer diarrhea” resulted in a spike in infant mortality rates to a high of 30 percent to 40 percent during the months of July, August, and September.<sup>1</sup> Caused by contaminated, sour milk to which milkmen often added water (to stretch it) and chalk (to whiten it), the illness particularly affected babies who were bottle-fed rather than nursed by their mothers. The problem was widespread, but particularly affected infants of poor and working class women who were unable to nurse their infants because of the demands of factory work. The illness exacerbated in summer with the need for increased hydration, and resulted in the deaths of hundreds of children.

During a particularly hot summer in 1893, Boston clergyman Rufus Tobey decided to initiate excursions on the harbor for indigent mothers and their sick infants.<sup>2</sup> His plan was based on the successes with floating hospitals on the Hudson and East Rivers in New York.<sup>3</sup> Backed by a group of Bostonian philanthropists, Tobey commissioned a barge to serve as a floating hospital and developed a plan for nurses and physicians to provide “tickets” (prescriptions) for women and infants to board. Soon known as the “Boston Floating Hospital,” the day-long excursions allowed the mothers and sick infants to escape the squalor and disease in the stifling tenement districts of South Boston and benefit from the cool breezes of Boston Harbor. Infants and children with contagious diseases were excluded however.

On the floating hospital, trained nurses, working under the direction of medical students from Harvard (and later from Tufts), provided care: taking temperatures and bathing feverish infants, giving them medications, feeding them with fresh formula or breast milk, changing their diapers, and allowing them to thrive in the sunshine and fresh sea air of the open decks. Nurses, who worked on the ship for a year at a time, also taught the mothers the basics of infant care, including how to



Sick children and their caretakers at the Boston Floating Hospital, ca. 1900.

change diapers and treat diaper rash, how to wash baby bottles, how to store milk on ice between feedings, and how to tell if milk was spoiled. Meanwhile, on the upper decks, volunteers provided nutritious meals and supervised playtime for the infants’ siblings. By the close of 1894, over “eleven hundred children” had received care on the barge.<sup>4</sup>

By 1905, the successes of the care on the ship led to its increasing popularity and the Boston Floating Hospital was upgraded to a larger, 170-foot ship, specifically designed and constructed for use as a children’s hospital. The larger ship housed an inpatient unit, a school for pediatric nursing, a formula room, and a laboratory for medical research on formula and infantile diarrhea. By 1926, the work of the Boston Floating Hospital expanded to include a land-based clinic and follow-up care in the homes by visiting nurses. For those who received this care, mortality from infant diarrhea had been reduced to 12.3 percent.<sup>5</sup>

The floating hospital remained in use until 1927 when an accidental fire burned the ship. In 1931, with charitable support from the city, the hospital’s board of directors established a land based pediatric facility rather than replacing the ship. The name endured—the Boston Floating Hospital, now a part of Tufts New England Medical Center, “floats” over Washington Street.<sup>6</sup> ■

<sup>1</sup> Stanford Shulman, “The History of Pediatric Infectious Disease,” *Pediatric Research*, 55 (2004): 163–176. For more on this topic see Rima Apple, “Advertised by our loving friends’: The Infant Formula Industry and the Creation of New Pharmaceutical Markets, 1870–1910,” *The Journal of the History of Medicine*, 41 (1986).

<sup>2</sup> Paul Beaven, “A History of the Boston Floating Hospital,” *Pediatrics*, 19, (1957): 629–637  
<sup>3</sup> For more on the floating hospitals in New York, see Cynthia A. Connolly, *Saving Sickly Children: the Tuberculosis Preventorium in American Life, 1909–1970*. (New Brunswick NJ: Rutgers University Press, 2008)

<sup>4</sup> Paul Beaven, “A History,” (1957): 631.

<sup>5</sup> IBID. (Note: Beaven’s statistics came from logs from the original ship)

<sup>6</sup> <http://radioboston.wbur.org/2014/10/01/boston-floating-kulig>

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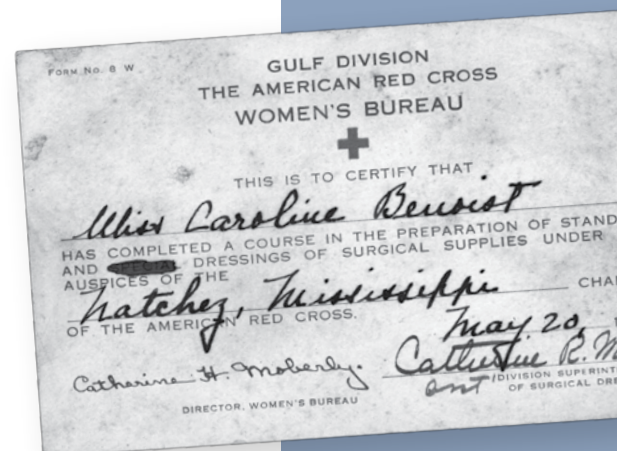
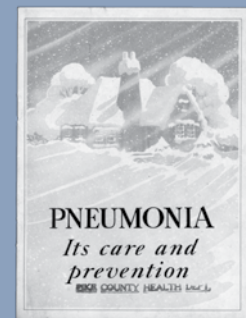
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