Bringing Canada's healthcare story to life!

MUSEUM OF HEALTH CARE AT KINGSTON

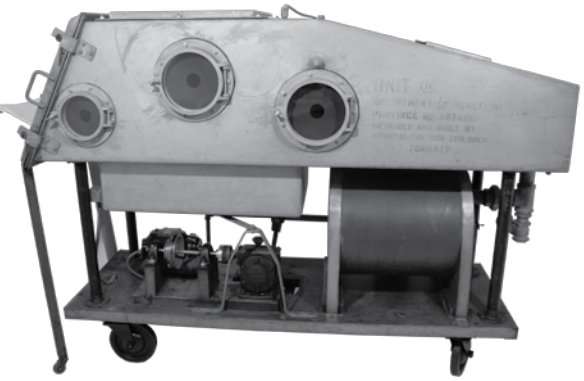
THE BAILLIEWICK

NOVEMBER 2013

VOLUME 16, ISSUE 1

Vaccines and Immunization: Epidemics, Prevention, and Canadian Innovation

By Pamela Peacock, Curator



Developed with Guest Curator Dr. Christopher J. Rutty, and funded in part by the City of Kingston and United Way Community Investment Fund, the Coalition of Canadian Healthcare Museums and Archives, and Sanofi Pasteur, this new exhibit uses case studies of diseases that saw significant decreases in the twentieth century because of immunization – smallpox, diphtheria, polio, and whooping cough – to identify the cost of epidemics to society and explore the search for adequate treatment and preventative measures, such as vaccines.

Smallpox is the first disease for which a vaccination was developed. The process of variolation dates as far back of the 11th century, and involves the purposeful introduction of smallpox materials (i.e. pustules or fluid) into a healthy person in order to improve their immune response and lessen the likelihood of subsequent infection. In the 1790s, Edward Jenner created the first vaccine by showing that exposure to cow-pox (*vaccinia*) minimized the risk of smallpox infection. Vaccination programs eradicated smallpox from Canada by the 1960s and the world in 1980.

The impact of contagious diseases in the 19th and early 20th centuries can sometimes be forgotten because of advances in public health

Diphtheria particularly affects children, creating a film in the throat that slowly strangles them. Antitoxin was developed in the 1890s to help treat the disease and minimize its severity. Only in the 1920s was a toxoid, or vaccine, discovered and tested that successfully reduced rates of incidence. Vaccination campaigns undertaken in the early 1930s drastically lowered the number of cases across Canada.

Throughout much of history, most people were exposed to polio in their youth creating adult immunity; however, by the early twentieth century improvements in hygiene meant that more and more adults had never been exposed to polio and were vulnerable to the disease.

Polio presents initially much like the flu and many people are able to fight it off with only minor symptoms. In some cases, though, the viral infection affects the nerves causing muscle weakness and paralysis; in others, paralysis affects the tongue, throat muscles and diaphragm, leaving the patient at great risk of suffocation.

Iron lungs use negative pressure to inflate and deflate the lungs of the patient inside, helping them to get oxygen. The patient's body is placed inside the iron lung while the head and neck protrude onto a canvas stretcher at one end. When the motor is running, pressure will alternatively build up inside the machine, causing the lungs to become smaller, and then decrease inside the machine, causing the lungs to expand

Image: *Respirator (iron lung)(1937) Museum of Health Care 99701900.3.*

>> Continued on page 7

IN THIS ISSUE:

ANN BAILLIE BUILDING
NATIONAL HISTORIC SITE
32 GEORGE STREET, KINGSTON, ON K7L 2V7

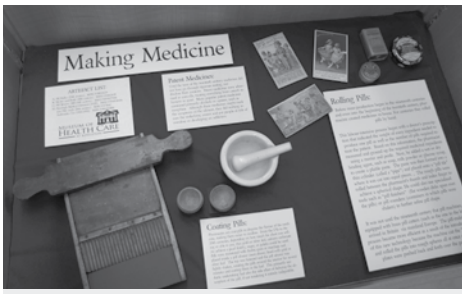
Phone: **(613) 548-2419**
E-mail: **info@museumofhealthcare.ca**
www.museumofhealthcare.ca
Charitable No. 87790 3989 RR0001

FALL/WINTER/SPRING: TUES.-FRI., 10AM-4PM
SUMMER: TUES.-SUN., 10AM-4PM
ADMISSION BY DONATION

All Museum images credited: *Julia Duszczyszyn, Kathy Karkut, Bethany Jo Mikelait, Ehsan Roshani, and Jenny Stepa.* ***Newsletter editor:*** *Jenny Stepa.*

Museum Highlights

Docent volunteer Melissa Ducsharm shows off a scarificator to participants of the October 2013 PA Day Program "Health Care in Upper Canada."



A multi-case outreach exhibit was installed in Queen's University's new School of Medicine building this autumn.

Participants get active while learning about their bodies in motion at the 2013 March Break Program "Pump It UP!"

May 2013 saw the installation of an exhibition at the Royal College of Physicians and Surgeons of Canada titled "Listerism: Antisepsis and the roots of modern surgery."

2013 Dr. Margaret Angus Research Fellowship

2013 Margaret Angus Research Fellow Robert Engen

On October 10th, Robert Engen, Queen's University PhD candidate, delivered the lecture "Half the Battle: War and the Public Health Revolution" to an interested audience in Watson Hall. By comparing two different military campaigns in the Scheldt Estuary, Engen argued that the most important changes were not in wound treatment, antibiotics or surgical technology, but in public health practices and preventative medicine.

Below is an excerpt from a blog post Engen wrote for the Museum of Health Care Blog. You can read his entire series at http://museumofhealthcare.wordpress.com.

> *It was only in the twentieth century, over half a century after the widespread acceptance of germ theory, that the number of disease casualties finally dropped below battle casualties. For most of human history, disease has played a pivotal role in the outcome of military campaigns.*
>
> *The causes of this dramatic reversal are not what you might think. I will take a closer look at two extreme examples in a comparative context: the British Walcheren Expedition of 1809, and the Canadian Army's Scheldt campaign in 1944. Both were fought over the exact same ground in the Netherlands thirteen decades apart, but the results of the campaigns could not have been more different, or more indicative of how disease and public health has shaped modern military history.*

St. Lawrence College: *From Hospital to College*

Kingston Nursing Education Past & Present 2013 Event

By Diana Gore

Each year since 2011, the Museum has been involved in planning events about the history of nursing with the *Kingston Nursing Education Past and Present Group.* This year's event, hosted during Nursing Week, focused on St. Lawrence College, as the school celebrated 40 years of nursing education in 2013. Guests attended a short talk at the college, toured the nursing simulation labs and ended the evening with a reception and memorabilia display at the Museum. Thank you to members of the working group and staff at St. Lawrence for all the support in organizing this event. I look forward to working with everyone on the 2014 event, which will highlight the history of nursing at the Kingston Psychiatric Hospital.

Retired nurses and event attendees marvel at a cardboard bedpan during their tour of SLC's nursing simulation labs

The Do's and Don'ts of Textile Storage

K. Karkut's answer to the question, "How can you use a pool noodle for preventative conservation?"

This year the Museum is tackling a project to improve the textile storage units within its climate-controlled storage facility in an effort to better care for its collection of nursing uniforms and caps, surgical gowns and military uniforms. Collections Manager Kathy Karkut, with the help of Collections Technicians Aarzoo Singh and Alison Dingledine, have been washing, ironing, mending, hanging and rolling nursing uniforms, some of which date back to the early twentieth century. The result? The formally crowded and boxed collection is now inventoried, beautifully displayed on hangers and custom mounts, and safely stored on custom designed rollers. Come and see the changes, and the collection of nursing uniforms from across Canada, at our Doors Open event in June 2014.

The lists that follow highlight some of the preventative conservation guidelines involved in this project. They were excerpted from Kathy Karkut's presentation on textile hanging storage at the *Caring for your Treasures* workshop on September 28, 2013 at the Museum of Health Care. At this event, the Museum collaborated with collections managers from the Agnes Etherington Art Centre and the City of Kingston to show participants how to preserve their prized possessions and store them for future generations.

The textile storage improvement project is funded in part by the Museums Assistance Program at Canadian Heritage.

Canadian Heritage Patrimoine canadien Canada

Collections Update

Do's of Textile Storage

- Assess the garment. Garments suitable for hanging storage are made from sturdy materials and fit the height and width of the hanging area. Hanging will create less wrinkling than folding into a box. Gowns with heavy skirts and long trains need custom supports if hung
- Check for cleanliness. Materials with dirt, insect, or mould problems should be cleaned before they are stored. Dirt and heavily starched fabric attract pests.
- Before hanging, confirm seams, hems, pockets, and closures are secure and remove heavy closures and attached jewelry to prevent distortion of fabric.
- When using skirt hangers, insert a strip of thin Ethafoam between the metal clips and fabric to prevent rust marks and deep indentations.

Don'ts of Textile Storage

- Don't store garments in plastic bags. Plastic seals in humidity, which can cause stains and rust marks from metal fasteners.
- Don't use wire hangers. Padded wood hangers with flannelette covering will keep thin fabric from slipping, provide additional support, and won't cause rust marks. Heavy plastic hangers also work.
- Don't use moth balls. They make garments smell, can be harmful to humans and pets, and aren't effective insect deterrents.
- Don't store garments in cedar-lined closets. Cedar is highly acidic and will off-gas, which accelerates the deterioration of cotton, linen, and rayon fabrics. Direct contact with unsealed wood will stain fabric.
- Don't crowd your storage area. Air circulation allows fabrics to breathe during seasonal temperature changes. You can fashion inexpensive spacers from pool noodles, which are museum-grade closed-cell Ethafoam/polyethyline.

High on Conservation Work

One of the current projects underway at the Museum is the re-housing of a collection of six opium pipes and accessories. The historical information on these artefacts is quite scarce therefore the project entails research of the dates and locations of origin, condition reporting of each object, determining whether interventive treatment is needed for stabilization, and the custom building of appropriate storage for each piece. This is an exciting project as it encompasses a variety of aspects of collections care and conservation, and upon its completion will ensure that these objects can be accessed by the public for years to come.

- Aimee Sims,
Collections Assistant

Opium pipe. Museum of Health Care, 1940.5.4.

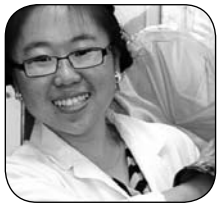
Welcoming New Faces

Erica Altomare is in her second year of the Concurrent Education program at Queens University. She wants to be a History teacher because she is extremely passionate about working with kids, teaching, and studying history. This is also why she loves volunteering as a docent for the Museum of Health Care. She hopes to inspire a love for history and learning in students of all ages. In addition to working at the museum, Erica is interested in both local and international social justice issues.

Julia Blakey was thrilled to be a Public Programs Assistant* for Summer 2013! She is in her final year at Queen's University studying Film and Media, and English Literature. In addition to collaborating on new public programs for the Museum last summer, she enjoyed learning more about Kingston's history of health care. Julia enjoys watching films, running, and experimenting with vegan cuisine.

Brendan Cull was a Curatorial Assistant** at the Museum over the summer. He completed his Bachelor of Science (Honours) in Biology in 2012 and a Bachelor of Education in 2013. His previous work in this field has been as an intern at the British Library in London, England and as a docent at the Royal Botanic Gardens in England during an alternative teaching practicum. This fall, Brendan is embarking on a Master's degree in Art History and one day, he hopes to become a curator. He loves photography, design and the out of doors.

Cécilia Cussonneau has a Museum background working in a Fine-Art Museum in France as public program coordinator. She moved to Canada 5 years ago and arrived in Kingston in 2010. Since then she's been teaching French. But she missed working in a Museum environment so she recently decided to go back to her passion for culture and art by volunteering at the Museum. She hopes soon she will be able to develop a project that would involve art and education.



Yan Ding recently joined the Museum this fall as a volunteer docent. She is currently a third-year Ph.D. student in Microbiology at Queen's University. She likes museums and science and is looking forward to helping the children's programs.

Alison Dingledine graduated from Wilfrid Laurier University with an Honours BA in History and recently completed the Museum Management and Curatorship program at Fleming College. She is excited to work closely with the collection and is looking forward to the experiences and opportunities that she will gain from working at the Museum.

Emily Gwiazda is returning as a volunteer docent this year. She is currently in 2nd year at Queen's University, majoring in History with a minor in World Languages (French, Italian). After graduation Emily hopes to work in the public history field and is glad to get this museum experience. As well as history, her interests include reading and travelling.

Katie Kwan recently joined the museum as a docent. She is in her third year of Biology and Concurrent Education. She loves being involved with the Kingston community and looks forward to making aspects of health care exciting to children and adults!

Athina Lavoie recently joined the Museum as a French Translator. She currently works as a Program Assistant (Publications) with the Canadian Teacher's Federation in Ottawa. In her spare time, she has been busy pursuing a certificate in translation with the Université de Saint-Boniface. Her interests are in translation, photography, website and graphic design.

Tiffany Martin first joined the Museum to complete her Alternative Placement (part of the Queen's Education program) and has continued her involvement as a volunteer docent. She hopes to have her own primary/junior class one day that can visit the museum to take advantage of the fun and informative hands-on programming.

Digital photographer **Bethany Jo Mikelait** is a Queen's grad student in the Masters of Art Conservation program, specializing in paintings. She graduated in 2005 from Queen's with a bachelor's degree in Fine Art, and worked for 8 years as a designer and production manager for a costuming company in Toronto. This past year she gained museum experience from working at the Royal Ontario Museum, assisting the Senior Paintings Conservator and the Collections Technician in the Canadiana department.

** Our thanks to Dr. Jacalyn Duffin and the Queen's Summer Work Experience Program (SWEP) for their support in the creation of this position! // ** Funding for this position was made possible in part through a contribution from the Young Canada Works in Heritage Organizations program, Department of Canadian Heritage. / Le financement pour ce projet a été rendu possible en partie grâce á une contribution de Jeunesse Canada au travail dans les établissements du patrimoine, une initiative du ministère du Patimoine canadien.*

Welcome to our newest Board Members:

Rhona Gale • Hon. Peter Milliken

Dr. David Tessier • Dr. Ruth Wilson

Thandiwe Phiri obtained her BSc in biological Sciences at the University of Zambia. Her family moved to Canada a little over 2 years ago. She recently worked as a Part-time Researcher in the Department of Public Health Sciences at Queen's, following her desire to learn more about health systems, quality care and patient safety. She wishes to pursue a masters program in the same area. In the future she hopes to contribute to and lead programs that will help deliver better health services here in Canada and in developing countries around the world.

Alexandra Sagan is a first year student at Queen's in the Concurrent Education Program. She is hoping to become a science teacher so being able to help at the Museum gives her a chance to interact with students and visiting groups and help them better understand health care. In her free time she enjoys reading books, skiing and travelling.

Congratulations & Goodbye

After two years at the Museum of Health Care, Curator **Pamela Peacock** will be moving to Ottawa in December 2013 to become an interpretive specialist at the Library of Parliament. The Museum of Health Care thanks Pamela for her hard work and important curatorial contributions, and wishes her the best in her new position.

Continuing Care of Obstetrical Models

Moulage, Museum of Health Care, 996003136.

The Robertson Collection of wax moulages at the Museum of Health Care preserve an important moment in the history of medical teaching aids. The use of wax anatomical figures in medical training developed during the Renaissance and continued for several centuries, until the discovery of various plastic materials eclipsed the use of wax in the twentieth century.

Dr. Edwin Robertson, chair of the Department of Obstetrics and Gynaecology at Kingston General Hospital in 1939, expressed frustration at the lack of anatomical teaching specimens that represented women of prime reproductive age. Dr. Robertson contracted local artist Marjorie Winslow to observe patients in clinic and operating settings and to sculpt models representing their anatomy and pathologies.

Winslow was prolific, but only 128 moulages survived after a fire destroyed many pieces prior to transfer to the Museum of Health Care in 1996.

In 2013 the Museum benefitted from the generosity of the Canadian Conservation Institute, which selected two moulages for restoration. One somatotype and one obstetrical model, both gravely damaged by cracks and missing materials were tested, stabilized and conserved for the benefit of future visitors.

Call for Community Engagement

Nursing Sister's medal set (1914-1935) Museum of Health Care, 992055001.

In the winter and spring of 2014, the Museum will develop a new exhibit called *The Canadian Army Medical Corps: Health care and heroism in the First World War.*

We are seeking support from our members and other area residents in the form of family stories and heirlooms that speak to the experience of military health care providers, such as the Nursing Sisters, and of patients. In addition to examining the health and medical treatment of combatants overseas, we will address how care on the home front also changed as an outcome of the war – the treatment of shell-shock being only one example.

If you have a story, picture, archival record, or artefact to share that helps illuminate this aspect of the war, we invite you to contact the Museum to receive further information on participating in this exciting project.

museum@kgh.kari.net
613-548-2419

Congratulations

Museum Founder **Dr. James Low** is the 2013 recipient of the Partners In Research Ronald G. Calhoun Science Ambassador Award. This award recognizes outstanding health education leadership and outreach activities, which have contributed to enhanced public understanding of the importance of health research. The award was presented in a ceremony on June 2, 2013 in London, Ontario. Congratulations Dr. Low!

Blog Feature

Grin and Bear It: Why It Was Best to Avoid the Dentist in the Ancient World

By Varsha Jayaraman, Curatorial Assistant

Toothaches are the second most common ailments (the first being the common cold). For most of us, our first instinct upon experiencing tooth pain is to go straight to the dentist so they can apply some anaesthetic and get to work fixing the problem; however, the people of the past did not have such luxuries. Toothaches, before the age of modern dentistry, were subject to drastic remedies that were painful, uncomfortable and, some might even say, horrific to experience. It may have been best to have just stayed at home…

A common conception from 1800 BCE to as late as the 18th century in Mesopotamia, India, Egypt, Japan and China was that toothache was caused by "tooth worms." The tooth worm was believed to bear a hole through your tooth, hiding beneath the surface. The pain would commence when it wriggled around and would cease when it rested. This was a common diagnosis with several supposed remedies.

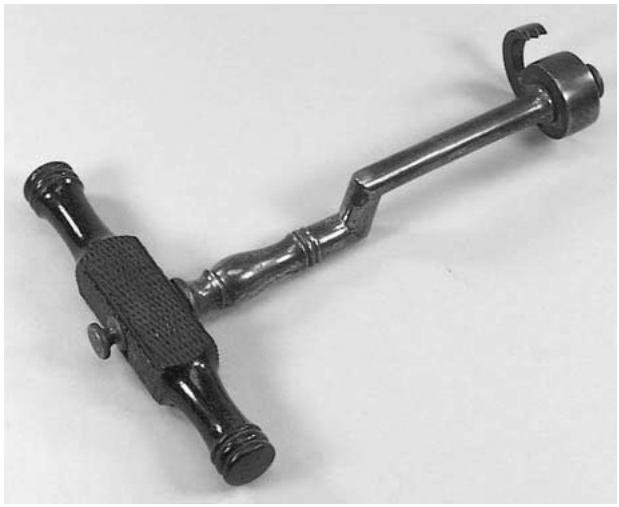
Remedies for toothaches in history ranged from the simple to the positively bizarre. Some recommended the fairly straightforward remedy of surrounding the aching tooth with some food or some herbals. The Aztecs, for example, suggested chewing on hot chilli, while Orthodox Jews found that sour juice could cure a toothache. Another common remedy was fumigation by means of burning certain herbs to cure the patient. This was by far one of the lighter remedies.

Other forms of treatment were odder and more drastic. The Scots believed that placing a caterpillar wrapped (some would even say "cocooned") in red cloth under the aching tooth would alleviate the pain caused by the "tooth worm." In India, one surgeon by the name of Vagbhata (650 CE) advised filling the cavity with wax and burning it with a hot probe. The Ancient Egyptians believed that pain would cease if you applied a dead mouse to the tooth. Arguably, that was not even the strangest remedy. Pliny the Elder, an ancient Roman author, advised the ailing to catch a frog under a full moon, open its mouth and spit into it while saying, "Frog, go, and take my toothache with thee!" Although pretty wacky, Pliny's cure did seem to be one of the most painless remedies … though, maybe not for the frog!

Oil of Cloves Pharmacy Bottle (1850-1860), Museum of Health Care 1980.18.12

An ancient remedy still employed by some traditionalist dentists today is the administration of "oil of cloves." By dabbing some cotton in the oil and applying it to the ailing tooth, one can reduce the pain caused by the toothache.

Considering the nature of these remedies, it comes as no surprise that some people attempted to prevent toothaches before they made even the vaguest appearance. The Medieval English in particular, notorious for their addiction to things supernatural, advised grave-robbing to keep toothaches at bay—a tooth from a corpse, worn as an amulet, was said to ward off toothaches and protect from dental ailments.



Toothkey (1830-1870), Museum of Health Care 1986.6.3

With the Industrial Revolution's new, steady supply and use of sugar, toothaches became even more common amongst the population of the Western world.

It was only during the age of the Scientific Revolution that the cause of toothaches was discovered. The culprits were infection and rot. As a result, extraction became a popular method of relief. Often, these were administered with a tooth or dental key.

The tooth key from the nineteenth century pictured here was used to extract teeth (often quite painfully). The dentist would insert the key horizontally into the mouth, where the "claw" would be hooked over a tooth. The instrument was then rotated to loosen the tooth and pry it out of the gums. The primitive forms of this instrument often resulted in tooth breakage, jaw fractures and soft tissue damage. After the discovery of antibiotics and anaesthetics, this process became much more bearable.

We may not use dead mice or tooth keys to treat toothaches anymore, but they are still a pain. So remember: floss everyday, kids.

Excerpt from the Feb. 9, 2013 Museum Blog post "Grin and Bear It: Toothache Day and Why It Was Best to Avoid the Dentist in the Ancient World."

80 Years of History in the Palm of your Hand

By Pamela Peacock, Curator

Shortly after I arrived at the Museum in the fall of 2011, we received the great news that we had been awarded a grant for $52,000 from the Ontario Trillium Foundation. This funding enabled us to leap with both feet into an exciting two-year project to develop not one, but two new apps that allow users to explore local medical and nursing history on their phones and mobile devices. The Museum strives to have a strong online presence, with a fantastic (if I do say so myself) website, blog, and social media presence; but, an app was new and exciting territory.

Left: Menu screen for KGH Main Building. Right: Archival photo of Ann Baillie during WWI

The Transformation of the Kingston General Hospital, 1835-1914 evolved out of a physical walking tour that the Museum offered for many years. We wanted to translate this tour into an app so that tourists could guide themselves on the walk, digging deeper into the issues and stories that interest them most. At the same time, we wanted to reach a wider audience, one that might not be able to be in Kingston, Ontario, and share the case study of KGH and the history of hospital development in the 19th century.

Over its 175-year history, KGH has been a part of many major evolutions in health care, from the introduction of anaesthetics and antisepsis, to nursing training and x-rays. As one of the few hospital campuses in Canada on which each original wing and building is still visible, KGH provides a tangible example of how health care changed and developed over time. The app puts this history into your hands, allowing you explore the expansion of hospital care building by building, from the original Main building to the Empire Wing.

Each of the seven buildings explored in the app offers you the opportunity to find out why they were built and where they fit within broader changes in medical practice. Archival and artefact images present intriguing looks into the past. The Kingston General Hospital Archivist, Lorna Knight, was an enormous help in finding and accessing many of the photos. We are also proud to present the Voices from the Past feature. For this, we collaborated with local actors and CFRC 101.9 FM to enact primary documents and plausible imagined scenarios to create audio-visual vignettes relating to key events from the hospital's past. You can connect to fascinating historical figures and moments in multiple ways in this app.

In conducting the research for this project I learned a great deal about the history of medicine and about local history. Although many of the developments featured are broadly applicable to North America, the people and places help define Kingston's heritage.

I hope you'll download it and find out more about this history. Let us know what you think – What did you learn? Did anything surprise you? How did you do on the quizzes?

To download for free, search for "museum of health care" on Google Play™ or in the iPhone Apps section of the App Store.

Ontario Trillium Foundation
Fondation Trillium de l'Ontario
An agency of the Government of Ontario.
Relève du gouvernement de l'Ontario.

Vaccines... *continued from page 1*

and fill with air.

A 1937 Iron Lung from the Museum's collection, restored at the Canadian Conservation Institute, is a centre-piece of the exhibition. This iron lung is one of 28 constructed at Toronto's Hospital for Sick Children during the polio epidemic of 1937. So many cases were admitted to hospital that an 'emergency' crew of engineers and tradesmen ran an assembly line in the basement of the hospital to construct the iron lungs. After the worst of the outbreak was over, excess iron lungs were sent to hospitals around Ontario. This one was used in Kingston General Hospital for several decades.

The search for a polio vaccine made great strides in the 1940s and 1950s thanks to innovations by a number of researchers. Connaught Laboratories made critical contributions when its scientists discovered a synthetic medium in which to grow the virus and a way to effectively grow large amounts of virus by rocking the cultures. This enabled enough vaccine to be produced to conduct field trials of an inactivated polio vaccine developed by Dr. Jonas Salk in 1954. North America waited on tenterhooks to hear the results, broadcast on 12 April 1955. The vaccine was successful at protecting against polio!

Subsequently, in 1962, Dr. Albert Sabin developed an oral polio vaccine. By 1965, Canada experienced almost no cases of polio.

Pertussis, or whooping cough, infects people of all ages but is most dangerous for the very young and elderly. Deep, racking coughs persist for weeks on end, disrupting the ability to sleep and work

>> *Continued on page 8*

Save the Date

Teddy Bear Hospital

Family Day Program for Ages 3 to 8

This Family Day, discover one of our most beloved programs! Bring your teddy bear or other special stuffed animal to the Museum where trained teddy doctors and nurses will be on hand to examine and treat your toy's bumps, lumps, and bruises! Learn, laugh, and find out why doctors and hospitals aren't so scary after all. The event includes a special story time, tasty snacks, and a hands-on craft activity. Suitable for ages 3-8, with adult accompaniment. Pre-registration required. To register call (613) 548-2419 or e-mail info@museumofhealthcare.ca.

Monday, February 17, 2014 at the Museum (32 George St.)
10:30 to noon OR 1:00 to 2:30 pm • $5/child

Yum, Yum, MUNCH!

PA Day* Program for Ages 6 to 12

Participants race to push food into their "stomachs" at Yum, Yum, MUNCH! in March 2012

Dive in and discover what happens to the food you eat during a hands-on adventure through the twisty, turny world of the digestive system! Super-charge your energy levels with a series of activities all about healthy eating and digestion. Suitable for ages 6-12. Pre-registration required. To register call (613) 548-2419 or e-mail info@museumofhealthcare.ca.

Thursday, January 30, 2014 at the Museum (32 George St.)
10:00-11:30 am • $3/child (no charge for adults)

**Professional Activity Day for the Limestone District School Board*

Stay in Touch

Don't miss any updates from the Museum of Health Care, from tweets about interesting artefacts from our collection, Facebook posts on upcoming events, and insightful blog post on various topics related to the history of health care. To follow along:

- Like us on Facebook (Museum of Health Care)
- Follow us on Twitter @MuseumofHealth
- Subscribe by e-mail to our blog museumofhealthcare.wordpress.com

Commemorative Donations

A commemorative gift allows you to pay tribute to the accomplishments of a respected colleague, friend or family member. When you choose to make a commemorative gift, we will send the honouree (or member of his/her family) a personalized card informing them of your gift. You can either use our online donation system (simply click "Donate" at the top of page) or send a cheque in the mail with a note about the person whose memory or accomplishments you wish to acknowledge.

Vaccines... *continued from page 7*

productively and often inducing vomiting.

A pertussis vaccine was developed in the 1930s, but work continued in laboratories to find better options into the 1990s. Currently, the pertussis vaccine is given in combination with the diphtheria and tetanus vaccines and is very effective.

There continue to be outbreaks of pertussis in Canada, in part because many people do not recognize the symptoms of whooping cough and mistake it for bronchitis, and in part because people are choosing not be immunized or are not receiving booster shots to gain adolescent or adult immunity.

The impact of contagious diseases in the 19th and early 20th centuries can sometimes be forgotten because of advances in public health, including immunization programs that have prevented many serious infections in today's society. Some diseases that had largely disappeared from North American society have been making comebacks in recent years. Such outbreaks are almost entirely preventable when individuals choose to immunize themselves and their children.

The renovation of the gallery housing this exhibition was funded in part by the Federal Economic Development Agency for Southern Ontario through the Community Infrastructure Investment Fund.

Canada

Federal Economic Development Agency for Southern Ontario
Agence fédérale de développement économique pour le Sud de l'Ontario

SANOFI PASTEUR

R&D

KINGSTON

United Way Kingston, Frontenac Lennox and Addington