

# Immunization Newsletter

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## Ciro de Quadros Honored as a PAHO Public Health Hero of the Americas

Dr. **Ciro de Quadros**, was honored on 25 April, 2014 as a “Public Health Hero of the Americas” by the Pan American Health Organization/World Health Organization (PAHO/WHO).

Ciro de Quadros accepted the award from PAHO/WHO Director Carissa F. Etienne during an international vaccine symposium marking the 20th anniversary of the Sabin Vaccine Institute, where **Ciro de Quadros** was Executive Vice President and Director of Vaccine Advocacy and Education until the day of his death.

“Ciro’s long and distinguished career in public health not only coincided with but indeed accelerated the growing use of vaccines to save lives and eliminate diseases in the Americas and beyond,” said Dr. Etienne in honoring **Ciro de Quadros**. “We at PAHO believe that no single person has done more to extend the benefits of immunization to people throughout the Americas.”

“I am deeply honored to be recognized by PAHO and to have been part of Latin America’s immunization efforts,” said **Ciro de Quadros**.



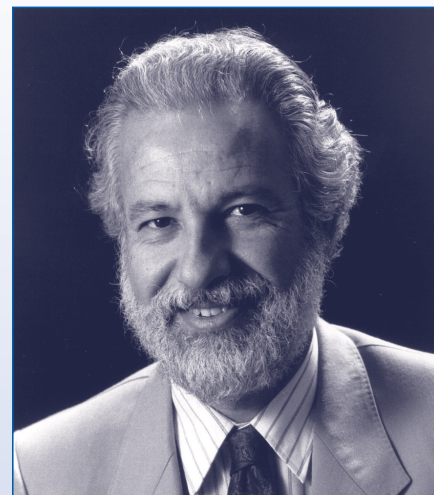
PAHO’s Director, Dr. Carissa F. Etienne, with Dr. **Ciro de Quadros** after giving him the “Public Hero of the Americas” award, Washington DC, 25 April 2014.

In the late 1970s, Dr. de Quadros founded the Expanded Program on Immunization (EPI) at PAHO, which encouraged and supported the countries of Latin America and the Caribbean in making vaccines available for populations that had previously been available only in wealthier countries.

In the early 1980s, **Ciro de Quadros** began advocating for the eradication of polio from the

See **CIRO DE QUADROS HONORED** on page 2

## Beloved Dr. Ciró de Quadros, 1940-2014



DR. CIRÓ DE QUADROS, 1940-2014

On 28 May this year, we lost a visionary, a mentor, and a friend, and one of the people that contributed most extraordinarily to the world of global immunization. Dr. **Ciro de Quadros** made a tremendous difference in the lives of millions—not just in those he saved through vaccination efforts, but also in those of us who were lucky enough to learn from working with him.

We have collected dedications, memorials, and even some of his own words to highlight who he was, his accomplishments, and what he meant to us. In honor of his memory and continuous legacy, we dedicate this special edition of the “Immunization Newsletter” to its creator and first editor, Dr. **Ciro de Quadros**. ■

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## Remembering a Hero

**Ciro Carlos Araujo de Quadros was born on January 30, 1940, in Rio Pardo, Brazil. He graduated from medical school in 1966 at the Pontifical Catholic University of Rio Grande do Sul in Porto Alegre, Brazil.**

Dr. Ciro de Quadros, a central figure in the eradication of polio from Latin America and the Caribbean and a Public Health Hero of the Americas, passed away on May 28, 2014. His contributions and the impact he made on the world will live on forever.

In 1974 Ciro founded the Expanded Program on Immunization (EPI) at PAHO, which encouraged and supported the countries of Latin America and the Caribbean in making vaccines available that had previously been available only in wealthier countries. He was also the key figure behind the creation of the PAHO Revolving Fund for Vaccine Procurement, established in 1979, which pools demand for vaccines and other supplies, achieving economies of scale that allow participating PAHO member countries to purchase vaccines at low prices.

In addition to founding the EPI program at PAHO, Ciro was influential in the development

of the national immunization programs across the Americas, the training and development of human resources, the overall strategy of the regular program, and the planning and execution of vaccination campaigns. Under his leadership, the Region of the Americas became the first region of the world to eradicate polio and to eliminate measles and rubella. His influence expanded to other regions of the world as well. He was a visionary and a dreamer and has provided the Americas and the rest of the world with a strong example of public health excellence.

In addition to heading PAHO's Immunization program, Ciro also served as WHO's Chief Epidemiologist for the Smallpox Eradication Program in Ethiopia from 1970 to 1976. He was considered a leader in the development of surveillance and containment strategies that were used in the eradication of smallpox worldwide, in addition to leading

polio and measles eradication efforts in the Americas.

In honoring Ciro de Quadros with this Public Health Hero award in April 2014, Dr. Carissa Etienne, Director of PAHO, stated "His [de Quadros's] leadership truly set the stage for PAHO's continued strength in immunization and, more important, for our Region's success in maintaining immunization coverage rates that are the envy of other regions of the world". "We at PAHO believe that no single person has done more to extend the benefits of immunization to people throughout the Americas."

In addition to his work, Ciro also served as Associate Adjunct Professor at the Johns Hopkins School of Hygiene and Public Health in Baltimore and Adjunct Professor in the Department of Tropical Medicine at The George Washington University School of Medicine and Health Sciences in Washington, DC. ■

### CIRO DE QUADROS HONORED cont. from page 2



Members of PAHO's Immunization Staff with Dr. Ciro de Quadros, 1993.



Members of PAHO's Immunization Staff with Dr. Ciro de Quadros, 2002.



Members of PAHO's Immunization Staff with Dr. Ciro de Quadros, 2014.

Americas, and in the next few years he successfully mobilized support from other immunization experts, other organizations and health authorities in PAHO Member States.

"His leadership and vision were essential to our Region becoming the first in the world to eradicate polio, a success story that inspired the global polio eradication campaign," said Dr. Etienne. "The list of his contributions was much longer, but all of us here are

keenly aware that he has been a force for good in our Region and in the world."

Ciro de Quadros acknowledged the importance of collaborative efforts to the success of immunization efforts in the Americas and worldwide. He also was clear that much remains to be done: "While we still have much to accomplish in global health, our achievements to date would not have been possible without the leadership of governments and collaboration with development partners," he said while accepting the Award.

The Public Health Hero of the Americas, PAHO's highest distinction, was established for PAHO's Centennial celebration in 2002. It honors individuals who have made extraordinary contributions to improving the health and well-being of the peoples of the Western Hemisphere. Even though Dr. Ciro de Quadros received numerous awards during his public health career, he considered the Public Health Hero of the Americas award one of the closest to his heart. ■



## Dr. Jon K. Andrus Speaks at PAHO Memorial for Dr. Ciro de Quadros

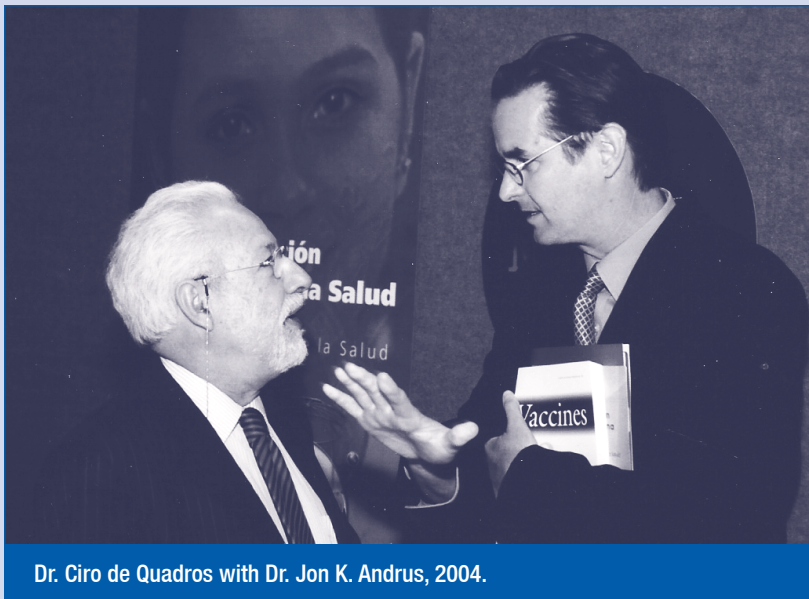
We are here to celebrate the life of Ciro de Quadros. As you know, he passed away last week on 28 May at 1:38pm. He was 74. We are honored to have his family here: Susanna, Julia and Cristina. No one in the past 50 years did more than Dr. de Quadros to prevent the spread of infectious diseases, particularly in the Americas. Beginning in Brazil in the 1960's, he helped arrest smallpox in a remote region of the Amazon and then in Western Ethiopia. He later led programs that brought an end to polio and measles, sometimes brokering cease-fires among warring factions in order to vaccinate children in battle zones. Today we have the opportunity to celebrate his life. And live successes that are also PAHO's successes.

After leading the eradication of smallpox in Ethiopia in 1977, Dr. de Quadros moved to Washington, DC to work for the Pan American Health Organization, WHO's regional branch for the Americas. He turned his attention to polio, a disease that often causes paralysis.

Since the discovery of a vaccine in 1955, polio had been largely eliminated from the United States and other countries with advanced medical care. But it remained a scourge in many poorer nations, where its victims were often reduced to lives as beggars.

Dr. de Quadros adopted many innovative methods to vaccinate

children and bring the diseases under control. He obtained investments from UNICEF, USAID, CDC, Rotary International, the Inter-American Development Bank and other organizations, and established an international fund to help poorer countries buy vaccines at a discount.



Dr. Ciro de Quadros with Dr. Jon K. Andrus, 2004.

He taught governmental health and finance ministers about the social benefits of preventive medicine. Even more remarkable was Dr. de Quadros' diplomatic ability. In several countries where there were wars or rebel insurgencies, he was able to persuade the combatants to lay down their arms in the cause of public health.

Ciro met with rebel leaders from El Salvador in a bar in Georgetown. He said "if you just stop fighting one day, it will benefit everybody." Ciro was a hero in that sense.

He called the truce, "Days of Tranquility," when public health workers could go into the countryside without fear and vaccinate children against polio. Even the

feared Shining Path guerrilla group in Peru agreed to take part.

The last known case of polio in the Western Hemisphere occurred in Peru in August 23rd, 1991.

While working for the Brazilian public health service, he developed an interest in epidemiology and infectious diseases. He received a master of public health degree in 1968 from the National School of Public Health in Rio de Janeiro.

Dr. de Quadros left the Pan American Health Organization in 2002, after turning his attention to eradicating measles from the Americas.

A year later, he joined the Sabin Vaccine Institute, where he was an executive vice president. At the time of his death, he was still seeking ways to eliminate infectious diseases around the world.

Dr. de Quadros kept working until the day before he died. He gave hundreds of presentations around the world and was known to heads of state, but he was also likely to show up in remote locations, talking with nurses about local health problems.

"My field experience has taught me to listen to fieldworkers," he told the Lancet in 2001. "You have to pay attention to everybody, because you cannot predict who will come up with the good idea." ■

## In the Mood for Wiping out Vaccine-Preventable Diseases: Interview with Dr. Ciro de Quadros

**Ciro de Quadros has led some of the most successful immunization campaigns in the history of public health. He tells WHO journalist Fiona Fleck why, in some ways, it's harder to eliminate vaccine-preventable diseases today than it was in the past.**

**WHO: How did you become interested in immunization?**

**Ciro de Quadros:** After I got my MD degree in 1966, I worked at a health center in a small town in the Amazon region, then studied epidemiology and got involved in a new national center for epidemiology, a kind of “Brazilian CDC” (Centers for Disease Control and Prevention). But the center never took off because people working there were accused of being communists by the military dictatorship. Through the center, I got involved in the smallpox campaign which had started in Brazil.

In 1969, three other colleagues and I did some of the first trials of the surveillance and containment strategy. The smallpox program in Brazil was based on mass vaccination but did not have enough resources to mass vaccinate people in every state. So we chose four states where we set up surveillance and containment units. I was in charge of the unit in Paraná, a state of some eight million people and where in 7 or 8 months we identified over 1,000 smallpox cases and vaccinated their contacts, about 30,000 people. As a result, transmission was interrupted. We published the research in this journal. That was my first experience with an immunization program.

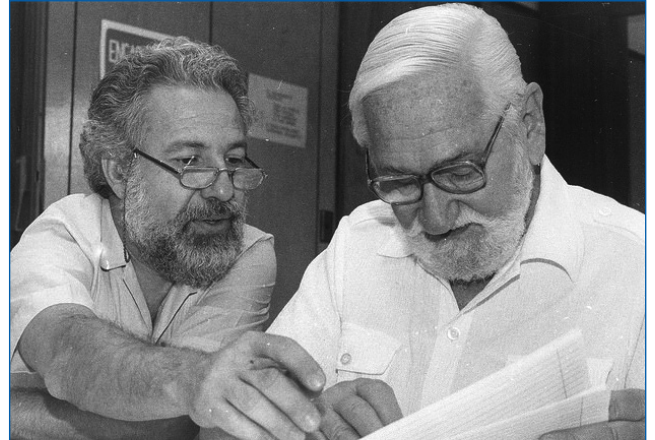
**WHO: What is surveillance and containment and how did you help to develop this approach?**

**Ciro de Quadros:** The smallpox program in Brazil started in 1966 with mass vaccination campaigns, which aim to vaccinate every single person. But when Donald A. Henderson came to Geneva to head the WHO Smallpox Eradication Program – before I worked on smallpox – he and his team realized that some countries with high levels of vaccination coverage still had smallpox outbreaks and that mass vaccination was not working everywhere. They knew that people with smallpox had pock marks on their faces and that these people usually knew where they got infected, because they had seen someone else like that. They said that if you could trace the chain of transmission from one patient to another over several generations and vaccinate all of the people who had come into contact with the smallpox patients,

you could stop the chain of transmission. That is how surveillance and containment works. In Brazil, surveillance and containment proved to be a fantastic strategy and it was tested in studies in West Africa and India with the same success. That's why it became the final strategy of the global smallpox program.

**WHO: Today Brazil is struggling to fill physicians' posts in remote areas. What motivated you to work in such places?**

**Ciro de Quadros:** When I applied to study at the National School of Public Health, a professor there advised me to work in the field first. A foundation called the Special Service for Public Health (Serviço Especial de Saúde Pública) was working in remote areas of Brazil and needed doctors. They sent me to head a health center in the Amazon Region, in a town called Altamira of about 4,000 people in the Pará state. All we had was a community nurse, a laboratory technician, a sanitarian and an administrator to take care of the health of that community. Vaccine coverage rates were not very high; maybe about 50% or 60%, and we only had a few vaccines: diphtheria–tetanus–pertussis (DTP), tetanus toxoid and bacille Calmette–Guérin (BCG) [for tuberculosis]. In the early 1970s, the picture was similar all over the developing world. Still, our small team managed to increase coverage to nearly 100% during my first year. We identified the traditional birth attendants in the area, who would travel to the health center and spend one day a week with us. They reported the births in their areas and we recorded close to 100% of these, then gave the attendants sterilized materials to use in their next deliveries. We had a good system for recording and following up, and if kids didn't come for a second or third dose, the nurse or sanitarian would visit the family to make sure they got it. We also sent the sanitarian to people's homes to improve sanitation by building latrines and connecting the water supply.



Dr. Ciro de Quadros with Dr. Albert B. Sabin, courtesy of the Sabin Vaccine Institute.

**WHO: This year marks 40 years of the Expanded Program on Immunization (EPI). In 1977, you went to work at PAHO to launch the program in the Americas, how did you begin?**

**Ciro de Quadros:** When the program was approved by the World Health Assembly (WHA) in 1974, nothing happened for three years. Vaccination coverage was very low, below 10% in many parts of the developing world and only three vaccines were in use in most countries– DTP, tetanus toxoid and BCG. Most countries in the region didn't even have an immunization program and were just responding to outbreaks. My task was to get the countries to organize themselves. First, we asked them to appoint an immunization manager to run their programs. Within a year they had done this. Then we trained the managers so that they could train their staff.

**WHO: The Americas was the first WHO Region to be certified polio-free in 1994, and it has kept measles at bay since 2002. Why has the Expanded Program on Immunization been so successful in the Americas?**

**Ciro de Quadros:** We had meetings to introduce countries to the concept of the Expanded Program on Immunization and soon all of them started moving in that direction. We brought together all the country managers and everyone else from the governments working in epidemiology, primary health care, maternal and child health,



**INTERVIEW** continued from page 4

financing and so on, and we asked them: “What are the problems that you have when trying to implement immunization programs in your countries and what are the solutions?” We listed the problems – how to improve coverage, do surveillance and organize the cold chain – and analyzed them. Then we produced a publication called Immunization and Primary Health Care: Problems and Solutions (PAHO Scientific Publication No. 417) and started working on those problems and solutions. PAHO still does this today.

**WHO: You were criticized in the early years of the Expanded Program on Immunization, how did you win over your detractors?**

**Ciro de Quadros:** At a cocktail party at PAHO in 1979, Dr. [Halfdan] Mahler, the Director-General of WHO at the time, told me that he would never let a program like smallpox dominate WHO’s work so much again. But, by the time we launched the program to wipe out polio in the Americas in 1985, he supported us. During the first three years, we demonstrated that our strategies were stopping polio transmission and that led to calls within WHO to eradicate polio globally. At the meeting in 1988 in Talloires (France) that led to the WHA resolution to eradicate polio, Mahler joined the heads of other international organizations and ministers of health and was very supportive of polio eradication.

**WHO: In the 1980s, armed conflict threatened to undermine the Expanded Program of Immunization in the Americas. How did you deal with this?**

**Ciro de Quadros:** We had lots of security problems during the decade of the civil wars. We had lots of problems in Colombia, El Salvador, Peru and other countries and tried to work with UNICEF and other partners and with conflict groups to find a resolution. We were lucky that we could broker peace days between the warring factions. The first one was in El Salvador in 1985, when everybody participated in the National Immunization Day – even the guerrillas – and that became known as a “Day of Tranquility.” Dr. [Carlyle Guerra de] Macedo, who headed PAHO at the time, called this “a bridge for peace” because we overcame problems through the discussion of health issues. Today, the situation in Nigeria and particularly in Afghanistan and Pakistan is more complex than in Latin America. I know that the Global Polio Eradication Initiative is dealing with those issues, and it’s not easy.

**WHO: What challenges does the Expanded Program on Immunization face today?**

**Ciro de Quadros:** We launched the polio campaign in 1985 and had the last case in 1991 in the Americas. The target was 1990 – we were eight months late. We didn’t encourage independent program initiatives, like those you see today on the global level. For example, a Global Polio Eradication Initiative that is not part of the Expanded Program on Immunization or a Measles & Rubella Initiative that may work independently of this program. We integrated all programs for vaccine-preventable diseases as far as possible. So, national polio campaigns included other vaccines, such as measles, DTP and tetanus toxoid. Many countries were so keen to wipe out measles they managed to control measles – and some even stopped



**Dr. Ciro de Quadros in Brazil, courtesy of the Sabin Vaccine Institute.**

measles transmission – during the polio campaign. We said: “Don’t do that now, finish polio first,” but some countries were just in the mood for wiping out measles.

**WHO: What is your advice?**

**Ciro de Quadros:** Avoid fragmentation. There are so many actors in the same field today: the GAVI Alliance, the [Bill & Melinda] Gates Foundation, the nongovernmental organizations and civil society – you need to coordinate them all. Also, with the advent of GAVI, another major challenge is financing vaccines for the middle-income countries. They cannot afford the expensive new vaccines, but there is nothing like GAVI to help them. The industry is trying to divide the world and their tiered pricing strategy has been damaging because many middle-income countries cannot afford these vaccines. They need new mechanisms to make these vaccines available, such as the PAHO Revolving Fund, created in 1979 and that today has a capitalization of about

US\$100 million, and they get reduced prices by purchasing in bulk.

**WHO: You are on the Polio Independent Monitoring Board and have led the Global Vaccine Action Plan (GVAP) process in the past. Why is the Decade of Vaccines and the GVAP making slow progress?**

**Ciro de Quadros:** The GVAP represents a fantastic initiative, but follow-up has been weak. WHO’s regional offices need to prepare or finalize their “regional vaccine action plans” and countries need to be supported in the preparation of their “national vaccine action plans.” Hurdles to implementation need to be overcome, such as insufficient budget allocation and lack of coordination among partners.

**WHO: Why the delay?**

**Ciro de Quadros:** First, you need to transform the GVAP into regional and national vaccine action plans. For example, at a recent meeting of the Expanded Program on Immunization managers from Africa, I asked how many of them had read the GVAP that was approved two years ago and that serves as a template for regions and countries. The answer was “none” because apparently they are not well briefed on the GVAP. It’s already four years into the decade: we need to accelerate progress. WHO needs to be more forceful on that.

**WHO: Which experience in your career had the most powerful effect on your work?**

**Ciro de Quadros:** Until today I bring with me all the lessons of the smallpox eradication program: that you must have a clear goal, everyone needs to understand that goal, everybody must work together to achieve that, you must have permanent research and feedback to the field, and you must have the resources and political support. Those are the principles we brought to the Expanded Program on Immunization and that has been my experience throughout my public health career.

**WHO: Is there anything you would have done differently?**

**Ciro de Quadros:** Nothing. I am so happy to have participated in so many great initiatives with such fantastic people, it was a fantastic ride that I had until now. ■

## Remembering **Ciro de Quadros**

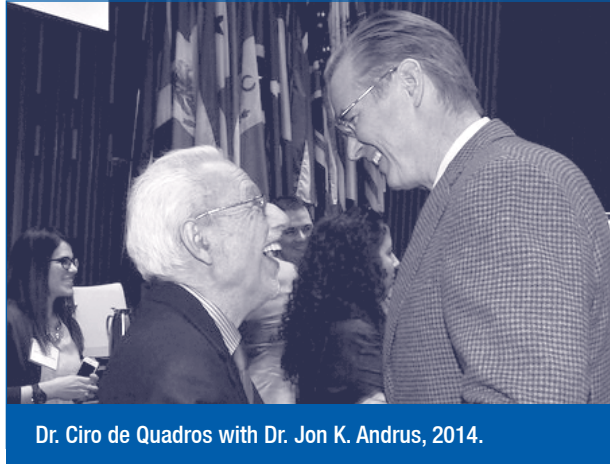
**Jon K. Andrus Speaks at PAHO's 22nd TAG Meeting, 1 July 2014**

On May 28th this year, the world lost a true public health hero. To many of us in this room, we lost a tremendous mentor, an amazing colleague, and dear, dear brother and friend. Few people in the world of global health have done more than **Ciro de Quadros** to prevent the spread of infectious diseases and save more lives in some of the poorest parts of the world. He was a compassionate champion of serving the underserved, of smashing down the barriers of inequities in health, and of wielding the benefits of prevention and vaccines. He did so throughout his career spanning 4 decades. And, he did so until his last few final dying days. He taught many of us how to live and contribute productively. And, in the end he in fact taught us how to die, with so much courage, honor, and dignity. He recently said, "I cannot beat this one. But, I am incredibly lucky. I lived far beyond my life expectancy that was expected in the year I was born. For me, it has been an incredible ride."

Beginning in Brazil in the 1960s, **Ciro de Quadros** led efforts to arrest smallpox in a remote region in the Amazon, and then in Ethiopia, Africa. He later led programs that brought an end to polio and measles, sometimes brokering cease-fires among warring factions in order to be able to vaccinate children in battle zones. Few would argue that **Ciro** was one of the greatest public health professionals we've ever had.

Having the incredible opportunity to work with **Ciro** over the years has been an amazing experience, and indeed a most wonderful highlight of my career. I am sure many of you feel the same way. Most striking about **Ciro's** leadership style was the fact he never asked any one of his team members to do something that he would not do himself. Yes, he most definitely had all the other qualities of inspiring leadership, including the vision, values, and valor, but just by the fact he would do most anything to save lives, including putting his own at risk, was truly inspiring for anyone who has ever worked with him.

**Ciro** first left his mark on the global health landscape in the early 1970s. Working as an epidemiologist in a rural Amazonia state of



Dr. **Ciro de Quadros** with Dr. Jon K. Andrus, 2014.

some 8 million people, **Ciro** led local efforts to stop smallpox transmission in less than a year. True to what would emerge as his life-long commitment to excellence in epidemiologic surveillance, he kept meticulous records on all the smallpox cases he and his team encountered. He used the data to target rapid vaccination of case contacts and quickly brought the end of transmission in that part of his country. Ultimately, his efforts contributed to a global strategy shift from mass vaccination, to a strategy focusing on surveillance and containment.

D. A. Henderson definitely saw a good thing when he visited Brazil in those early years. He quickly hired **Ciro** to oversee smallpox eradication efforts in Ethiopia, Africa. In fact, D.A. would later say that the best thing he ever did was hire **Ciro de Quadros**. **Ciro** would later become the grandfather of the Expanded Program on Immunization in the Americas, and of polio eradication globally, and the rest is history. **Ciro** saved or improved the lives of millions of people around the world. He worked tirelessly until his last final hours. The last communication I personally received from **Ciro** was a text message 48 hours before his death. In response to an update over some issue he was concerned about, he simply said, "Great." That was the last I heard from him. And, in the end for me that message said it all. I would venture to say that many in this room have received similar messages from **Ciro**, with a simple but ever so powerful, "Great". That message from **Ciro** was, is, and forever will be "Great." Indeed, he taught us, and continues to teach us through his example of how to die.

I can say with the sincerest conviction that **Ciro** embraced life like no one I have ever met, and I am sure the same is true for many of you too. Beyond his work, he loved jazz, art, science, and history. In many ways, **Ciro** was a modern Renaissance man. He loved to take friends and colleagues to local jazz clubs to embrace the beautiful music that made him so happy and joyful. But, professionally, he possessed that extraordinary talent to turn what seemed as insurmountable challenges, into incredible opportunities groundbreaking for saving the lives of more people.

When working with a particularly difficult person or group, I once asked **Ciro**, "How do you work with such people?" He immediately replied, "Make it fun." Yes, indeed, he made it fun, but in the end he also virtually always made it great.

When it came to leadership and leading teams, **Ciro** truly broke the mold. As mentioned, he exuded the vision, values, and courage that inspired people to work above and beyond their natural human capacity. What made him so unique is that all his leadership qualities were grounded in his field experience, those early years of working in the field, listening and learning from the field workers who struggled with such challenging conditions of poverty and inequities every day. **Ciro** was by no means perfect. He was incredibly demanding. He even admitted to me once that he was a slave driver! But, at the end of the day, with who have you ever worked who was able to make such an incredible difference in the lives of so many people?

On this auspicious occasion of the 22nd meeting of PAHO's Technical Advisory Group on Vaccine-preventable Diseases, let's once again celebrate the life and times of Dr. **Ciro de Quadros**. Let's celebrate the millions of lives he saved, and the many lives he touched, including mine, and many of yours in this room. Let's celebrate his legacy through the work each of us has left to do, in the remaining time we have. One of my favorite quotes exudes **Ciro** in a nutshell. It was made by a South African boy dying of AIDS. "Do what you can with what you have in the place you are in the time you have." ■



## Obstacles Overcome: Excerpts from ‘Experiences with Smallpox Eradication in Ethiopia’ by Dr. Ciro de Quadros

“[...] In 1974 we had a difficult transition when, a military revolution, overthrew Emperor Haile Selassie. It was of course a very difficult period in the country. All UN operations except our programme stopped. Stopping the programme at that time would have been disastrous. We received permission to stay in the country but the US Peace Corps volunteers were withdrawn. However, with additional WHO resources we were able to deploy more nationals. We also hired local people in addition to the ones that the government had assigned to the programme. Many senior health staff from Ethiopia were hired, including a very competent Ethiopian, to be the counterpart of the director of the programme, and another to be my counterpart as the chief epidemiologist. In each province we started hiring more senior Ethiopians. The programme was “nationalised”. It was the best phase of the programme. During this transition period there were many challenges. There was a time when the government decided that no private aircraft could fly in the country because they wanted to prevent people from leaving the country. There were also issues related to currency flowing out of the country. But again we came to an agreement with the government to keep our programme going. At this point we had

already received additional resources, including aerial support with five helicopters and a couple of fixed wing aircrafts. We also had the support of a C47 aircraft that carried jet fuel to the helicopter bases. These resources became available in part because the eradication of smallpox in India and Bangladesh, released both financial and human resources to areas where smallpox was still endemic. The government allowed us to fly the helicopters and aircrafts with the condition that we carry an army officer with us. This was agreed to since the programme benefited from their knowledge of the local language. The army officers could serve as interpreters between the staff and local population. This arrangement satisfied all parties and we continued using helicopters and aircraft with no major difficulties.

Over the course of the seven year campaign to eradicate smallpox in Ethiopia many challenges were overcome. Beginning with the overall lack of medical infrastructure and a variety of competing interests for the limited resources available

to the Ministry of Health, smallpox was all but ignored for a long time. With the hard work of dedicated staff a successful surveillance and containment strategy made great strides toward the goal, but government instability, harsh working conditions and nomadic populations continued to present roadblocks. In the end the mission was accomplished through innovative interventions and continued persistence. Today, we see similarities with the problems the polio eradication initiative is having in the Ogaden desert to those we faced thirty years ago. It is my hope that this supplement will assist those working in the field today to reflect on the lessons learned from the smallpox eradication campaign.” ■



Dr. Ciro de Quadros working on smallpox eradication in Ethiopia, 1971, courtesy of the Sabin Vaccine Institute.

With permission from Quadros, C: Experiences with smallpox eradication in Ethiopia, *Vaccine*, 29: D30-D35, Elsevier, 2011

### Selected Obituaries Commemorating Dr. Ciro de Quadros:

- “How Did This Man Rid Latin America of Polio?” (*Global Citizen*, USA)
- “Ciro de Quadros, 74, Dies; Leader in Ridding Latin America of Polio” (*The New York Times*, USA)
- “Doctor helped lead eradication of smallpox, measles, polio” (*The Washington Post*, USA)
- “Ciro de Quadros” (*The Lancet*, UK)
- “Remembering vaccines champion Dr. Ciro de Quadros” (*One*, USA)
- “Remembering Ciro de Quadros, Global Health Hero” (*Impatient Optimists*, USA)
- “Dr Ciro de Quadros, immunization champion, dies at age 74” (*Global Polio Eradication Initiative*, Switzerland)
- “Ciro de Quadros – obituary” (*The Telegraph*, UK)
- “Ciro A. de Quadros In memoriam” (*Rota Council*, USA)
- “Remembering Ciro de Quadros, Global Health Hero” (*Huffington Post*, USA)
- “Honoring the Life of Dr Ciro de Quadros” (*Union of International Associations*, Belgium)
- “Ciro de Quadros” (*The British Medical Journal*, UK)
- “Remembering Dr. Ciro de Quadros, advocate for vaccines” (*The GAVI Alliance*, Switzerland)
- “Global Health Hero Ciro de Quadros Dies at 74” (*IS Global*, Spain)
- “Remembering Dr. Ciro de Quadros” (*ScienceDirect*, The Netherlands)
- “In Memoriam: Ciro de Quadros, MD” (*Sabin Vaccine Institute*, USA)

The *Immunization Newsletter* is published every two months, in English, Spanish, and French by the Comprehensive Family Immunization Project of the Pan American Health Organization (PAHO), Regional Office for the Americas of the World Health Organization (WHO). The purpose of the *Immunization Newsletter* is to facilitate the exchange of ideas and information concerning immunization programs in the Region, in order to promote greater knowledge of the problems faced and possible solutions to those problems.



An electronic compilation of the *Newsletter*, "Thirty years of *Immunization Newsletter*: the History of the EPI in the Americas", is now available at: [www.paho.org/inb](http://www.paho.org/inb).

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**In Memory of Dr. Ciro de Quadros**

Public Health Hero of the Americas (1940-2014)



Very few people have seeped into my soul and Ciro's passing has made my soul ache. Today my soul aches; I can't describe it any other way.

- Irene Leal



Ciro was a friend, a brother, a fantastic leader, a colleague and sometimes a father and the best professor I ever had. We will miss him but he will always be with us.

-Bernardus Ganter



His leadership and determination were essential to the eradication of polio in the Americas.

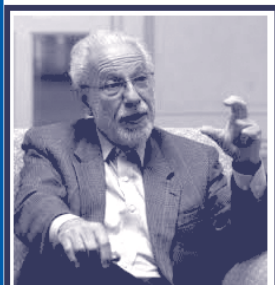
May he rest in the peace of the Lord.

- Patricia Ruiz

We are very sad. The feeling is overwhelming and is difficult to put into words.

As Dr. de Quadros requested from Peter Carrasco a few weeks ago, when Peter asked what he could do for him, Ciro responded: "Do your work very well." Ciro is an example now and forever.

- Gina Tambini



The Heart of a great champion of public health has stopped beating. Let us follow this huge soul that now looks down upon us. Let us follow his standard and example. Let us follow his great legacy that taught us "he who organizes, acts." Ciro lives on! This is not a sad day; it is a day of reaffirmation, of consequence, of the commitment of vaccinators. Let us live proud of Ciro.

- Carlos Castillo Solórzano

The pain is too great, so great that I regret not having gone to see him, hug him, and thank him for having been our greatest TEACHER. Only those of us who were trained by him as his disciples can understand what this loss means. Now it falls to us to honor him by following in his footsteps, aiding children and families every day the way he always taught us.

- Desiree Pastor

