

October 2021

Becton-Dickinson



**A Valued
Partner**

BD, a global medical technology company, donated 75,000 liquid-based Pap tests and laboratory equipment, enabling CerviCusco to introduce this new technology to Peru. The company also made important financial donations that allowed CerviCusco to expand the capacity of the laboratory, training facilities and administrative areas. In addition, BD purchased a minibus to take staff and volunteers on rural outreach medical campaigns.



CerviCusco was exclusively selected by BD and more than 30 skilled BD VST volunteers were sent to assist CerviCusco in improving many phases of its operation for 4 consecutive years.



IMPACT STATEMENT

Compassion in Care - Excellence in Medicine

Since its inception in 2008, CerviCusco has introduced modern, expert-guided healthcare services to more than 100,000 people living in the Andes Mountains region of Peru. These services have been delivered to a largely impoverished (< \$100/year family income), indigenous population living in remote, difficult to access areas. Using a novel, evidence-based “Dia del Mercado” method, CerviCusco has enabled state-of-the-art cancer testing free of charge. Our local, community-based approach virtually eliminates access barriers to high quality services.

To extend medical services further, CerviCusco partnered with Harvard University and the International Cervical Cancer (INCCA) Foundation to provide expert-rendered telemedicine consultations of abnormal Pap tests obtained by the CerviCusco staff. This high-tech service enabled quality control not previously available in Peru. Further, in conjunction with Becton-Dickinson (BD), CerviCusco became the first health care center in Peru, and still the only Peruvian laboratory, to provide modern liquid-based Pap tests, a vastly improved method to collect, process and evaluate these superior cancer detection screening tests.

Recently, CerviCusco has partnered with RAD-AID, an international radiology humanitarian organization, to raise the quality of early breast cancer detection in the region. Using modern ultrasound equipment and Artificial Intelligence interpretations of images, CerviCusco now offers breast cancer detection technology not available elsewhere in Peru.

In partnership with Merck, CerviCusco has provided the Human Papillomavirus (HPV) vaccine to more than 25,000 children, adolescents and adults who were otherwise unable to receive the cancer prevention vaccine. Many individuals live in difficult to reach mountainous areas.

In addition to providing excellent, compassionate care, CerviCusco is committed to enhancing patient education through uniquely created animated videos translated into both Spanish and Quechua. In conjunction with Medical Illustrators from Augusta University, we have improved healthcare as evidenced by results from our scientific studies published in medical journals. Moreover, CerviCusco is also dedicated to sharing our medical knowledge with local Peruvian healthcare providers. By educating our local colleagues, our impact is expanded further to



MERCK AND CO., INC, a global pharmaceutical company, discovers, develops and provides innovative products and services that save and improve lives around the world. Merck has donated 85,200 doses of the Gardasil HPV vaccine, which has enabled CerviCusco to vaccinate thousands of Peruvian men, women and children against HPV, which causes most cases of cervical and other types of cancers.



In 2016, CerviCusco became the first non-profit organization in Latin America to receive Merck Global Health Fellow volunteers for three-month rotations to strengthen the work of CerviCusco in the areas of strategy, finance, community relations, cancer education and marketing. As one of 10 non-profit organizations selected worldwide annually, CerviCusco has received this award three times.

benefit additional people. Listed below is a brief summary of our vast impact on people living in the region.

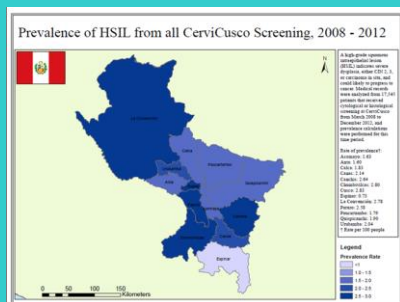
IMPACT SUMMARY OF CERVCUSCO SERVICES

- **25,000+** children, adolescents and adults have been vaccinated against cancer causing Human Papillomavirus (HPV) at CerviCusco
- **70,000+** women have received modern liquid-based Pap tests
- **10,000+** women have undergone colposcopy diagnostic examinations conducted following abnormal Pap test results
- More than **2,000** biopsies have been obtained to detect cancer
- More than **200** women have received state-of-the-art treatment for cervical pre-cancer at CerviCusco
- CerviCusco has conducted **1,000+** cancer prevention and screening campaigns in the remote region
- **2,000+** medical and other volunteers have assisted CerviCusco
- 10+ Medical Research studies conducted at CerviCusco
- More than **50,000** people have been examined at CerviCusco Clinic
- More than **100,000** people have received medical care from CerviCusco
- Nearly **700** women have received HPV testing at CerviCusco
- Peruvians residing in all 13 districts of the province of Cusco have received medical care from CerviCusco
- More than **2,000** abnormal Pap test results have been reviewed by US-based expert telemedicine consultations to enhance quality control
- Artificial Intelligence technology has reviewed breast ultrasound examination images in women with breast masses at CerviCusco
- More than **2,500+** Peruvian healthcare providers have received medical education by CerviCusco and visiting volunteer experts
- The direct financial impact (value of services performed) on local healthcare by CerviCusco is estimated at **\$17.6 million**.

University of Georgia Educational Connection Continues at Cervi Cusco



Undergraduate and graduate students from the University of Georgia have benefitted from various educational and research opportunities at CerviCusco. Graduate students from the School of Public Health have completed capstone projects and internships in epidemiology. Several years ago, several students provided unique maps of the incidence rates of cervical neoplasia in the 13 districts of Cusco. Their work was shared with the Ministry of Health to help target areas at highest risk.



Multiple Health Promotion students have also satisfied graduation internship projects under the guidance of Cervi Cusco. Another graduate student has studied Quechua while assisting CerviCusco in rural communities.

CerviCusco has quickly advanced the quality of healthcare in the region. Several of our accomplishments are particularly noteworthy for being “*Firsts in Peru*” despite the remote location. Our milestones reflect industry partnerships, academic efforts, humanitarian collaborations and philanthropic recognition. The timeline below highlights some of our more significant achievements.

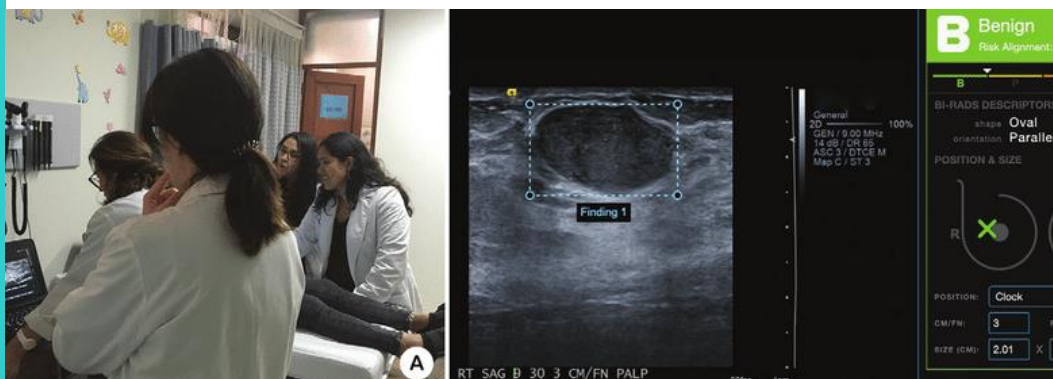
CerviCusco Key Milestones

2008	CerviCusco Clinic founded, offers expert colposcopy services
2009	First US industry-funded clinical research study
2010	Liquid-based cervical cytology (Pap) implemented – First in Peru
2011	Telepathology consultations with the US initiated – First in Peru
2012	Important partnerships with local and global entities established
2013	First US-National Cancer Institute-funded research study
2014	US Social Responsibility volunteer support programs initiated
2015	Second US-National Cancer Institute-funded research study
2016	Comprehensive HPV vaccination program in remote regions – First in Peru
2017	Friends of CerviCusco founded in the US- Valued CerviCusco partner
2018	Family Medicine services offered
2019	Collaboration with RAD-AID for early detection of breast cancer- First in Peru
2020	CerviCusco founder receives prestigious UPenn Humanitarian Renfield Award
2021	CerviCusco provides patient care during COVID-19 pandemic

Cervi
Cusco



RAD-AID is a humanitarian organization that implements sustainable radiology services in underserved, impoverished, and resource-limited areas of the world. In partnering with Cervi Cusco, RAD-AID provides valuable radiology education and volunteer assistance with respect to early breast cancer detection. CerviCusco has implemented a collaborative clinical program with RAD-AID using ultrasound technology and Artificial Intelligence interpretations. Women consequently receive expert healthcare not otherwise seen in Peru. RAD-AID selected CerviCusco as their first site in Latin America for humanitarian partnership. For more information about the RAD-AID/CerviCusco partnership see: <https://rad-aid.org/countries/latin-america-and-the-caribbean/peru/>.



RAD-AID and CerviCusco use artificial intelligence (AI) for breast ultrasound in the Andes Mountains of Peru for earlier detection and risk stratification of breast masses.



HARVARD UNIVERSITY

Thanks to a donation by a pathologist from Harvard University, Dr. David Wilbur, CerviCusco was able to open Peru's first telepathology center within its onsite laboratory. High resolution images of abnormal cytology (Papanicolaou test) slides have been viewed weekly in real time by volunteer pathology experts from US and Canadian academic medical centers. Such collaboration provided expert virtual consultations for our remote clinic. Through this incredible program, CerviCusco provided the highest quality of screening tests for cervical cancer in the country.



The International Cervical Cancer (INCCA) Foundation was founded 16 years ago to develop a sustained health care presence in the Andes Mountains of Peru with the goal of reducing the morbidity and mortality of cervical cancer in the region. Soon thereafter, CerviCusco was established to locally achieve those same goals. Hundreds of volunteers from INCCA have since provided incredible humanitarian assistance to Cervi Cusco.

Recently, INCCA made a very generous financial donation to support new liquid-based cervical cytology availability at the CerviCusco laboratory. Greater access to modern cervical cancer screening will have a positive impact on health care in the region.

The Ethics of Global Health Programs

Despite apparently good intentions, many global health programs lack certain essential qualities that experts have noted to be lacking. In particular, many initiatives suffer from what experts consider an absence of sound moral and ethical practices. Consequently, those individuals receiving medical services by visiting providers are unfortunately negatively compromised.

CerviCusco takes great pride in providing compassionate and high quality care while simultaneously ensuring appropriate local medical standards and regulations are observed. The care delivered to our Peruvian patients is no different, and is of the same high ethical standards, than that afforded to individuals living anywhere in the world.

CerviCusco is compliant with the American College of Physicians' STEGH Ethics position paper published in the *Annals of Internal Medicine* (Ann Intern Med 27 Mar 2018 doi:10.7326/M17-3361).

What they are saying about CerviCusco

Our Medical Students



Without the generous SETH scholarship, I would not have been able to conduct research and clinical work with CerviCusco this summer. My knowledge grew immensely, not only through the clinical exposure but also my conversations in Spanish with the local Peruvian people, from CerviCusco employees and patients to the locals of Cusco. Through seeing the operations of CerviCusco, I have gained confidence in my abilities to interact in Spanish in a medical setting, as well as my abilities to one day create an organization of a similar type.

In my two short months with CerviCusco, the welcoming employees and volunteers generously taught me about medicine, Peruvian culture, and life, making it very difficult to return home. I plan to use my experience with CerviCusco to facilitate my matriculation to a residency program that values global health work and supports my goals of creating a career for myself within this field.

Living and working at CerviCusco has provided me with a fantastic model of how a long-term American-Peruvian medical partnership can function efficiently. I hope to use this experience to further my career in the fields of medicine and global health.

Austin Isaac, *University of Georgia/Augusta University Medical Student*
Friends of CerviCusco SETH Scholar

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I want to support Cervi Cusco. How do I make a donation?

Donations allow CerviCusco to continue providing modern medical care for disadvantaged people in Peru. Your donation made through Friends of CerviCusco directly supports the clinical operations at CerviCusco.

There are multiple ways to make a donation to financially support CerviCusco:

- Make a general donation on our Friends of CerviCusco website.
- Support a friend or family member coming to CerviCusco by making an online donation to Friends of CerviCusco.
- Volunteer at CerviCusco and receive a letter of service donation (for tax deduction purposes).
- Donations can be made online using a credit card, PayPal or by simply writing a check.
- Purchase products from valued corporate partners. For example, use AmazonSmile and Friends of CerviCusco receives a donation of 0.5% of the total purchase price.



Lupine flowers growing atop Mt. Picol approximately 15,000 feet above sea level. CerviCusco is located at the base of this natural preserve.



THE UNIVERSITY OF
CHICAGO
MEDICINE

University of Chicago- Global Health Program at CerviCusco

For more than 10 years, Dr. Sonia Oyola, Director of the Family Medicine Clerkship at Pritzker School of Medicine, University of Chicago, has led multiple groups of UC medical students and residents to experience clinical rotations at CerviCusco.



Students have participated as part of a national humanitarian program known as REMEDY for the past 10 years. Of note, these incredibly generous students raised more than \$25,000 to help CerviCusco purchase the “CerviBus” to provide safe and comfortable transportation during cancer screening campaigns to remote mountain villages. Several other UC medical students have conducted clinical research at CerviCusco during their summer recess. CerviCusco is grateful to help train future physicians from the University of Chicago and other exemplary academic medical institutions.

Other Affiliations

In addition to several of our partners listed above, CerviCusco has had affiliations with multiple US-based universities including Harvard University, Emory University, University of Chicago, University of Georgia, University of Colorado, University of Rhode Island, Duke University, University of California San Francisco, Augusta University, University of South Alabama, Gardner-Webb University, University of South Carolina, Texas A&M, Mercer University, East Carolina University, University of Miami, Medical College of Wisconsin, Virginia Tech, Georgia Southern University, Cornell University, University of Wisconsin, Louisiana State University, and others.

In addition, healthcare faculty from other institutions such as Yale University, Dartmouth College, Columbia University, University of Pennsylvania,



University of Pittsburgh, Cleveland Clinic, Mayo Clinic, MD Anderson, Hadassah University, University of New Mexico, University of Virginia, University of Arizona, New York University, University of Alabama Birmingham, University of West Virginia, University of Louisville, University of Massachusetts and others have assisted CerviCusco.

Volunteers from France, Israel, Canada, England, Peru, Japan, Mexico, India, Philippines, Australia, Kenya, Germany, Singapore, Sweden, Spain, Venezuela and New Zealand have worked at CerviCusco.



Did you know?

- On **just a single day**, in conjunction with the Cusco Regional Government, CerviCusco provided Pap testing to more than 1,800 women and HPV vaccination for more than 1,200 children, adolescents and young adults.
- In 2016, CerviCusco collected, processed and analyzed 15,000 Pap tests.
- Thanks to an amazing \$8 million grant from Merck and Co., Inc., CerviCusco administered the HPV vaccine Gardasil to more than 30,000 boys and girls in the difficult to reach Andes Mountain region of Peru.
- CerviCusco is a Peruvian National Institute of Health (INS) certified clinical research center.
- Through a very generous \$1 million grant from Becton and Dickinson, CerviCusco is the only medical center in Peru providing the BD SurePath liquid-based Pap test.
- CerviCusco has conducted multiple US National Institutes of Health, medical industry-funded and investigator-initiated clinical research studies.

Cervical Cancer in Peru



Cervical cancer is the most common cancer of women in Peru. And unfortunately too many women with advanced stage cervical cancer are diagnosed at CerviCusco each year. As in other resource poor parts of the world, women die from cervical cancer much earlier in life than from ovarian cancer and breast cancer. Such premature mortality inflicts a devastating toll on the overall wellbeing of many families.

CerviCusco maintains a comprehensive approach to cervical cancer prevention through primary prevention with the HPV vaccine, screening with modern liquid-based cytology, diagnostics with colposcopy and contemporary therapeutic interventions. Women living in the more remote Andes Mountains are at particularly greater risk. However, each week, the CerviCusco team travels many hours to isolated communities to provide direct care for the local population.

Ausangate – Nearly 21,000 feet elevation and visible during the winter from Cusco. The apu or Incan god Pachamama or Mother Earth is found here. CerviCusco has conducted multiple screening and vaccine campaigns in communities located at the base of this spiritual mountain.

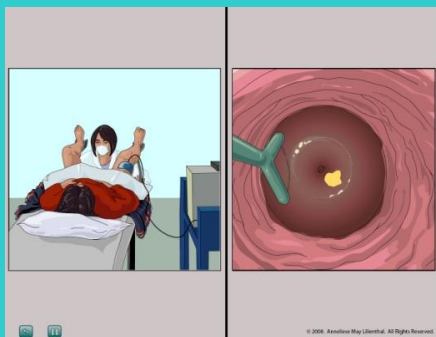


Did you know?



More than 4,500 patients were enrolled our Dia del Mercado research study. We determined that utilizing local market places can help reduce barriers to cervical cancer screening.

[Ferris DG, Shapiro J, Fowler C, Cutler C, Waller J, Condorhuaman WSG. The Impact of Accessible Cervical Cancer Screening in Peru- the Día Del Mercado Project. J Low Genit Tract Dis 2015;19:229-33.]



Patient Education is a top priority for CerviCusco. We use multiple animated, culturally sensitive, educational videos to teach our patients about pertinent topics. These videos are available in Spanish and Quechua. Our research demonstrated that use of culturally sensitive video information minimizes adverse emotional responses associated with loop excision procedures before surgery.

[Ferris DG, Condorhuaman WSG, Waller J, Lilienthal A. Impact of a Video Intervention for Rural Peruvian Women with Cervical Neoplasia Prior to Loop Excisional Procedures. J Low Genit Tract Dis 2015;19:224-8.]

CerviCusco Goals

- Reduce the morbidity and mortality of cancer
- Maintain a free-standing regional clinic in Cusco, Peru
- Provide care to rural, indigent, indigenous people
- Maintain an educational training site for health care providers
- Extend availability of clinical trials to eligible patients
- Provide education about cancer prevention and health issues
- Observe ethical clinical, business and administrative practices

CerviCusco