



Worldwide Healing Hands Mission Report: Rwanda 2021

May 28th, 2021 - June 12th, 2021

By Erin Flores & Paula Dhanda



Photos: Nathan DeHart

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MISSION TEAM MEMBERS

WHH Team Members:

- Paula Dhanda, MD, OB/GYN
- Charlyn Belluzzo, PhD, Public Health
- Toni Brayer, MD, Internal Medicine
- Cathy Baker, MD, OB/GYN
- Melissa Miskell, DO, OB/GYN
- Alan Waxman, MD, OB/GYN
- Laura Fry, MD, Family Medicine
- Erin Flores, WHH Executive Assistant
- Michael Delvalle, Energy Consultant
- Nathan DeHart, Professional Photographer
- Amber Warner, Social Worker
- Jan McKinney, Designer
- Jessica Baker, Student



Israel Team Members:

- Offer Erez, MD, OB/GYN, Perinatologist
- Limor Besser, MD, OB/GYN, Perinatologist
- Efrat Shpigel, MD, OB/GYN, Perinatologist
- Tal Refaeli Yehouday, MD, GYN Oncologist
- Lee Segev, MD, OB/GYN, Perinatologist
- Alex Rabinovich, MD, GYN Oncologist

Rwanda Partners:

- Dr. Diomede Ntsumbumuyange, CHUK OB/GYN Department Chair
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- Dr. Stephen Rulisa, Professor of OB/GYN
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- Philippa Decuir, BCIA Founder
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OB/GYN Residents

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BACKGROUND

For this 2021 mission in Kigali, Rwanda, [Worldwide Healing Hands](#) (WHH) was invited by the [Rwanda Ministry of Health](#) to work with Dr. Stephen Rulisa and Dr. Diomede Ntasumbumuyange from the [University Teaching Hospital of Kigali](#) (CHUK) to provide a comprehensive training program for residents and faculty in secondary cervical cancer prevention procedures. This training program, as supported by collaboration with ASCCP and virtual lectures and case studies through [MD Anderson Cancer Center's Project ECHO](#), was implemented using the “train the trainer” model to create a localized network of physicians capable of effectively performing the “screen and treat” method on women being tested for precancerous lesions. Ultimately we view our Rwandan colleagues as full and capable partners, and by working together we will build a program that will raise awareness for cervical cancer in both the medical field and public sector, encourage healthcare workers to promote routine cervical cancer screening, and effectively train the OB/GYN residents and medical staff at CHUK.

“The University Teaching Hospital of Kigali is the largest hospital located in the District of Nyarugenge at KN 4 Ave, Kigali, Rwanda. It is also the biggest referral hospital of the country with a capacity of 519 beds. CHUK provides quality healthcare to the population, training, clinical research and technical support to all district hospitals.

The University Teaching Hospital of Kigali is committed to providing quality health care according to international standards, training health professionals, contributing to the development of human resources, conducting outstanding research and providing technical support to the health system.” ([CHUK](#))



Worldwide Healing Hands Rwanda mission report, 2021

MISSION OBJECTIVES

- Establish a sustainable teaching program for cervical cancer prevention at CHUK. This program utilizes the “train the trainer” model and emphasizes the significance of screening and treating patients for cervical precancer during the same visit.
- Prevent cervical cancer by identifying and treating precancerous lesions.
- Ascertain the knowledge level of each resident year for CHUK’s OB/GYN residents.
- Increase awareness about cervical cancer screening and prevention in both the medical and public sectors.
- Meet and collaborate with Rwandan partners to establish future training programs and assess the population’s needs

MAIN GOALS:

- Establish an official partnership between The University Teaching Hospital of Kigali (CHUK) and Worldwide Healing Hands to create a sustainable training program for cervical cancer prevention.
- Assist Rwanda in their efforts to succeed in reaching the 90-70-90 targets as expressed in the WHO’s Global Strategy for the Elimination of Cervical Cancer.
- Evaluate the educational, equipment and institutional needs of CHUK’s medical staff and OB/GYN residents.
- Provide lectures on Visual Inspection with Acetic Acid (VIA) screening, Thermal Ablation, Loop Electrosurgical Excision Procedure (LEEP), Colposcopy, Epidemiology of Cervical Cancer in Rwanda, and HPV Transformation.
- Engage residents in Thermal Ablation, LEEP, and Colposcopy simulations using equipment provided by Worldwide Healing Hands and CHAI.
- Identify trainers to continue teaching VIA, colposcopy, thermal ablation and LEEP at CHUK.
- Equip CHUK with surgical equipment and medical supplies necessary for performing cervical cancer screening and treatment, including two EVA colposcopes, one LEEP machine, and LUCIA cervical models.
- Conduct two rural health center visits to raise awareness of cervical cancer and establish site potential for future screening programs led by our partner, PINCC. These site visits are organized by Philippa Decuir, founder of Breast Cancer Initiative East Africa.
- Donate four suitcases full of medical supplies and cervical cancer awareness materials to the two rural health centers.
- Meeting with Rwanda Rotary chair, Victor Nkindi, to begin the process of securing Rotary International Global Grants for cervical cancer elimination in Rwanda.

DETECTION OF PRECANCEROUS LESIONS OF THE CERVIX:

Visual Inspection with Acetic Acid (VIA)

Visual inspection with acetic acid (VIA) is a cervical cancer screening method that can detect early dysplastic (precancerous) lesions before they develop into invasive cancer. The exam requires minimal resources and can be performed by physicians, midwives and nurses. Treatment for precancerous lesions can be offered the same day, known as the “screen and treat” approach, as a trained physician can immediately remove the precancerous areas of the cervix using either an ablative procedure or by conducting a LEEP. VIA has been implemented in many low-resource areas

and has been proven to be effective in reducing deaths from cervical cancer. Our objective during this mission was to introduce this screening method and encourage the residents to perform VIA cervical screening on every female patient over 25 who has not been regularly screened for cervical cancer.



Colposcopy

Colposcopy is a way of looking at the cervix through a special magnifying device called a colposcope. The device shines a light into the vagina and onto the cervix, allowing for better visualization of the entire cervix and transformation zone. As colposcopes can greatly enlarge the view of the cervix, it is much easier for the practitioner to identify abnormal cellular growth. During this mission, over 40 OB/GYN residents and faculty were trained in colposcopy, and WHH

donated two hand-held EVA system colposcopes and three LUCIA cervical training models to CHUK after the training was completed. These colposcopes can capture images for us to review remotely, which will allow our physicians to give suggestions for treatment plans.

EVA Colposcopes

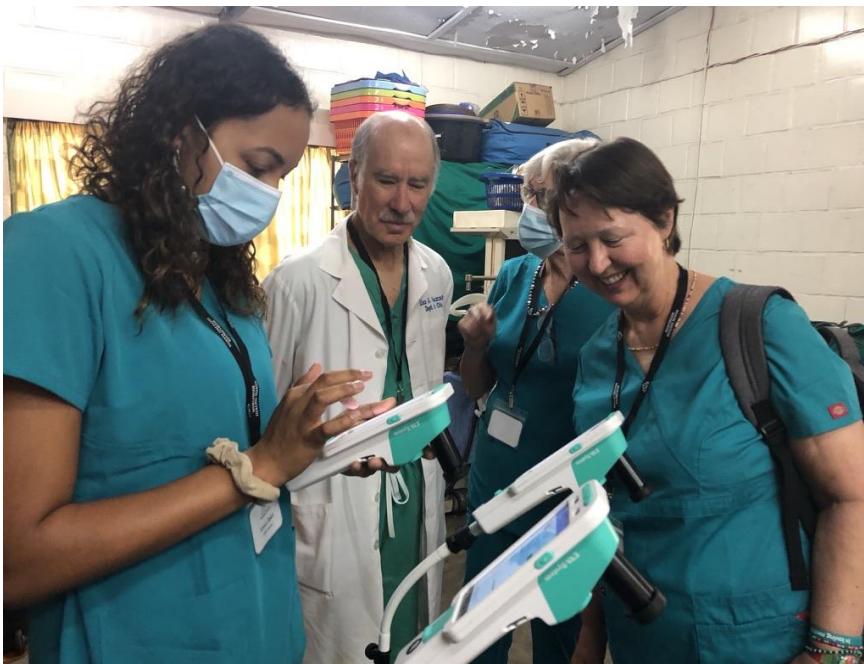
The EVA System is a mobile colposcope designed for durability and portability. Features include:

- Ultra-bright light source with cross-polarization to reduce glare
- Green light to assist in viewing blood vessels and acetowhite lesions
- Lens enabling up to 16X magnification for superior imaging
- Rechargeable, long-lasting battery for up to 10 hours of continuous use



The EVA System runs on secure software to allow for real-time enhanced visualization of the cervix, empowering health providers to:

- Securely enter and review patient images and data
- Consult in real time or asynchronously with remote experts for decision support
- Counsel and educate patients using cervical images to improve engagement



The EVA System strengthens all cervical cancer programs, especially those using VIA. All information and patient data are securely stored in the online EVA System portal, which is accessible by designated personnel. Program managers and clinical supervisors can:

- Review screening results and consultation decisions from anywhere in the world
- Access program level analytics for quality assurance and supportive supervision
- Integrate EVA System data with electronic medical records software via APIs

TREATMENT OF PRECANCEROUS LESIONS OF THE CERVIX

Precancerous lesions of the cervix can be removed with several modalities, including thermal ablation, LEEP (Loop Electrosurgical Excision Procedure), cryotherapy and cold-knife conization of the cervix. Removal of precancerous lesions of the cervix is life-saving as it prevents the patient from developing cervical cancer. During our mission, WHH provided lectures and simulations for LEEP and thermal ablation procedures to the OB/GYN residents and faculty at CHUK.

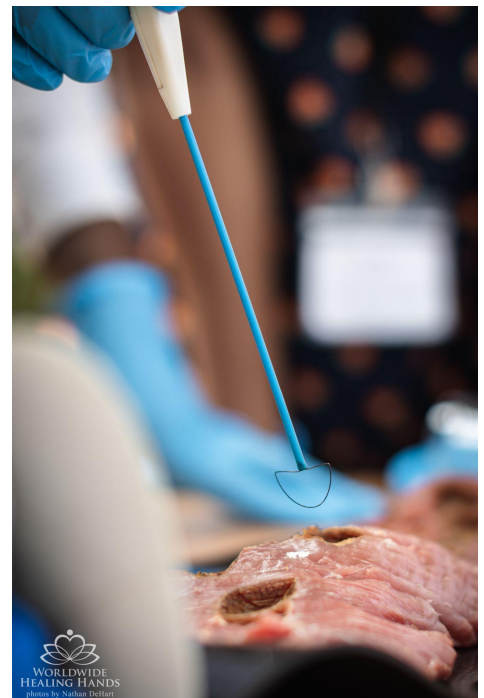


Thermal Ablation

Thermal ablation is a procedure that uses intense heat to destroy precancerous tissue. The superficial epithelium blisters off after treatment, and the underlying stroma and glandular crypts are destroyed by desiccation. This procedure has clinical appeal because it is user-friendly, inexpensive, portable, and runs entirely on electrical power. The treatment is fast, easy to learn and the equipment can be used in low-resource areas due to the minimal resources needed to operate the system. The treatment requires no local anesthesia and is administered within a very short treatment cycle (less than 1 minute). The device is fairly simple to use and does not require arduous or costly training for an operator to learn the procedure.

LEEP

Loop Electrosurgical Excision Procedure (LEEP) is a life-saving surgery that removes both the precancerous lesions and the transformation zone, preventing lesions from developing into cervical cancer. LEEP has an exceptionally high success rate, between 90 - 95%, for treatment of dysplastic lesions. To conduct this procedure, anesthesia is administered into the patient's cervix. Once the anesthesia has taken effect, an electrical current is passed through a wire loop, which is then used to cut away a thin layer of the cervix. After the tissue has been removed, the physician uses a ball cautery and Monsel's paste to staunch any bleeding, and patients can often return to non-strenuous work the next day. LEEP is a preferred method for removing precancerous lesions as the procedure can remove multiple lesions at a time and the removed cervical tissue can be sent to a pathologist for further analysis.





CERVICAL CANCER PREVENTION: RWANDA

Every year more than half a million women worldwide are diagnosed with cervical cancer. More than half of these women will die. In under-resourced countries like Rwanda, this preventable disease is the most common type of cancer-related death and the second most common type of cancer.

Due to the dire need to end the preventable suffering caused by cervical cancer, the World Health Organization (WHO) has recently released the [Global Strategy to Accelerate the Elimination of Cervical Cancer](#), a public health strategy which sets goals for the global eradication of cervical cancer. In addition to raising awareness, the WHO established the [“90-70-90” framework](#), which sets three major targets: 90% of girls fully vaccinated with the HPV vaccine by the age of 15; 70% of women screened using a high-performance test (Pap smear or HPV-DNA testing) by the age of 35, and again by the age of 45; and 90% of women with pre-cancer treated and 90% of women with invasive cancer managed. ([WHO Cervical Cancer Elimination Initiative, 2021](#))



Since 2010, Rwanda has excelled at implementing a structured HPV vaccination program which both educates the public on cervical cancer and the significance of vaccinations, and provides HPV vaccines to girls at local schools and clinics. This program has been incredibly successful, resulting in 95% of 12 year old girls becoming vaccinated against HPV prior to engaging in sexual activity. However, while this program has effectively protected the vast majority of developing girls, this initiative was not designed to help women who did not have access to the vaccine prior to becoming sexually active or women who are HIV-positive and are therefore more susceptible to developing cervical cancer. Additionally, this program does not encourage healthcare workers to routinely screen their patients for precancerous lesions, does not educate women on the importance of routine cervical cancer screening, and does not administer the HPV

vaccine to boys, who often spread high-risk HPV strains that can lead to the development of cervical cancer.



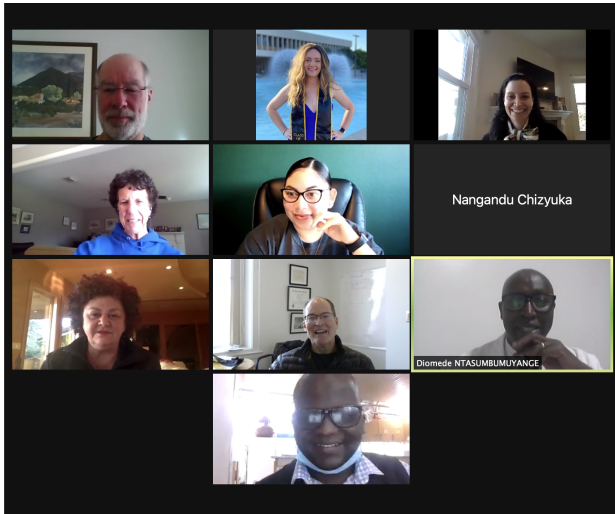
The most important aspect of preventing cervical cancer, in addition to HPV vaccines, is routine screening. Routine screening is crucial to prevention as it allows the healthcare worker to intercept precancerous lesions and remove them before they develop into cervical cancer. Globally, Pap smears and HPV-DNA testing have been instrumental in the massive reduction of cervical cancer cases reported in the industrialized world, with these two exams culminating in a 70% reduction rate of cervical cancer cases in the US alone. However, because Pap smears

and HPV-DNA testing require accurate reporting, frequent communication between lab technicians and gynecologists, and reliable laboratory resources, Rwanda has been unsuccessful in implementing universal screening for cervical cancer. In Rwanda, HPV testing is only available in a limited number of districts, therefore the majority of physicians must rely on more basic, low-resource methods like Visual Inspection with Acetic Acid (VIA). Additionally, even though VIA can be performed by physicians, nurses, midwives, and healthcare workers, awareness of the significance of regular cervical cancer screening in both the public and medical sectors remains very low.

WHH CERVICAL CANCER PROGRAM

Recognizing that a cervical cancer program would need to be multi-faceted to effectively address the various issues contributing to the epidemic of cervical cancer in Rwanda, Worldwide Healing Hands (WHH) determined that the most sustainable approach to implementing this initiative would be to create a program that, similar to our work in Uganda, would focus on training OB/GYN residents in Rwanda. To begin preliminary scheduling for this program, WHH worked with Dr. Stephen Rulisa and Dr. Diomedes Ntsumbumuyange to determine the location for our team's in-person training and identify the residents who would be able to participate. After it was solidified that our team would train approximately 40 OB/GYN residents at The University Teaching Hospital of Kigali (CHUK), WHH, in collaboration with ASCCP, put together a three-phase program: Phase 1 would be virtual training prior to the mission; Phase 2 would be the medical mission itself; and Phase 3 would be post-mission follow up to ensure retention of material taught during Phases 1 and 2.





Phase 1

WHH reached out to [MD Anderson Cancer Center](#), one of the largest cancer treatment centers in the world, and worked with the developers of their cervical cancer program, known as [Project ECHO](#), to create a pre-mission two-day virtual lecture series in which secondary cervical cancer prevention procedures and topics would be introduced. These sessions took place on March 29, 2021 and March 30, 2021 from 5:00 am PST to 8:00 am PST, and lectures covered topics ranging from Barriers and Facilitators to Cervical Cancer Screening in Rwanda, to How to Perform Visual Inspection with Acetic Acid.

Phase 2

WHH sent our team of skilled medical volunteers to CHUK to provide hands-on training for 40 OB/GYN residents and faculty in the prevention and treatment of cervical cancer. The 40 residents were split into two groups, 18 of which attended the first week of training (May 31st - June 4th, 2021) and 22 of which attended the second week of training (June 7th - 11th, 2021). The lectures provided during this mission include: Epidemiology of Cervical Cancer, Natural History of HPV Transformation, VIA, Colposcopy, Thermal Ablation and LEEP. Additionally, our cervical cancer training program was provided in tandem with Dr. Offer Erez's Managing Obstetrical Hemorrhage course.



During these two weeks, Monday mornings were spent presenting the cervical cancer prevention lectures and afternoons were used for colposcopy, Thermal coagulation and Loop Electrosurgical Excision Procedure (LEEP) simulations. Tuesdays were utilized by Dr. Offer and his team to cover lectures, simulations, and case studies for their Managing Obstetrical Hemorrhage program. Wednesday through Friday the first week was spent doing rounds with the residents at CHUK to ensure they had

supervised opportunities to implement their training. During the second week, Friday morning was utilized for supervised rounds as well. Throughout this training program, our team focused on reinforcing the “single-visit approach” which encourages women to be screened and receive treatment in the same appointment, negating the need for a referral. Additionally, after the completion of this training WHH donated 2 EVA colposcopes, 1 Liger LEEP machine, and all medical supplies used during the simulations.



volunteers from WHH travelled to two rural healthcare centers as set up by our Rwanda partner, Philippa Decuir of Breast Cancer Initiative East Africa. These trips were intended to determine the site potential for our partner PINCC, to spread awareness of cervical cancer to local medical staff, and to encourage routine cervical cancer screening for rural Rwandan women. These trips are discussed in detail on pages 16-17.

Phase 3

The third and final phase in this project is monthly virtual follow-up sessions as provided by WHH and MD Anderson Cancer Center’s Project ECHO. These sessions will be used to discuss case studies and allow for experienced physicians to state their observations on cases provided by Rwanda’s residents and faculty. These monthly sessions will begin on July 19th, 2021 and will take place on the third monday of each month at 10:00 am PST.

Additionally, during our time in Rwanda



TWO JUMBO JETS PROGRAM

In addition to the WHH cervical cancer course, a team of six physicians from Israel, led by Dr. Offer Erez, introduced their education program which aims to prevent maternal death from obstetrical hemorrhage.

The initiative's name, *Two Jumbo Jets*, signifies the number of mothers who die daily from obstetrical complications around the world. Obstetrical hemorrhage is the leading cause of preventable maternal mortality in low-income countries, mostly due to postpartum hemorrhage (PPH), affecting 1 in 1,000 deliveries or 112 mothers per day. The Two Jumbo Jets Initiative is endorsed by the Women's Health in Thrombosis and Hemostasis of the International Society for Thrombosis and Hemostasis (ISTH).

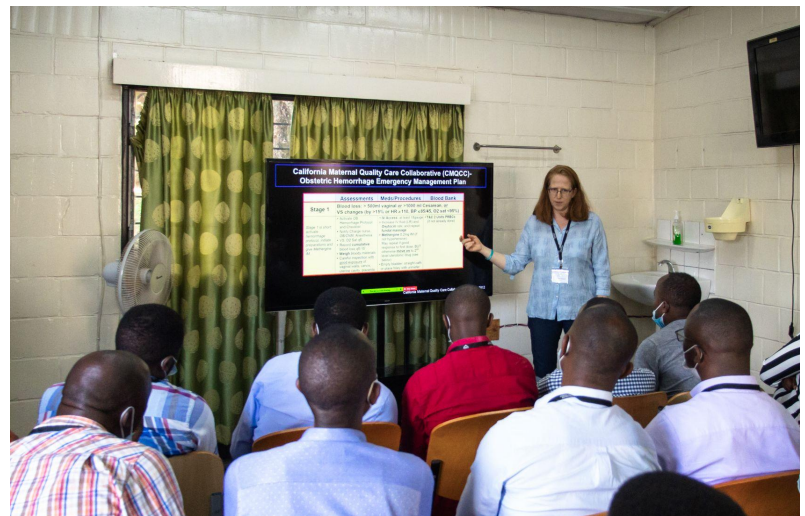
The main goal of this program was to establish a regional center of excellence that will:

- Increase awareness about obstetrical hemorrhage among health care providers and the general public
- Train health care providers to deliver skilled obstetric care
- Develop infrastructures and tools for managing obstetrical hemorrhage in rural settings



The training curriculum for this program began with lectures, and was followed by interactive case-based discussions and clinical simulations adjusted for the level of training of the participants. After their completion of this program, graduates acquired knowledge regarding the causes, diagnosis, treatment and prevention of obstetrical hemorrhage in both hospital and rural settings. Moreover, the clinical simulations trained the residents to improve their teamwork skills as they are essential for the management of obstetrical hemorrhage.

Travel expenses for the Two Jumbo Jets team was sponsored by an educational grant through the ISTH and Ferring. Additionally, their team plans to join WHH on our next medical mission to Rwanda in January of 2022.



CLINICAL CASES OBSERVED

As part of the cervical cancer training program, Dr. Paula Dhanda, Dr. Cathy Baker, Dr. Alan Waxman, and Dr. Laura Fry conducted rounds with the OB/GYN residents at both CHUK and Muhima District Hospital. During this time, they oversaw care for a total of 44 patients.

<u>Date</u>	<u>Physicians</u>	<u>Location</u>	<u>Patients Seen</u>
June 2, 2021	Dr. Paula Dhanda & Dr. Cathy Baker	CHUK	10
June 2, 2021	Dr. Alan Waxman & Dr. Laura Fry	Muhima District Hospital	4
June 3, 2021	Dr. Paula Dhanda & Dr. Cathy Baker	CHUK	15
June 3, 2021	Dr. Alan Waxman & Dr. Laura Fry	Muhima District Hospital	3
June 4, 2021	Dr. Paula Dhanda & Dr. Cathy Baker	CHUK	6
June 4, 2021	Dr. Alan Waxman & Dr. Laura Fry	Muhima District Hospital	2
June 11, 2021	Dr. Paula Dhanda & Dr. Cathy Baker	CHUK	2
June 11, 2021	Dr. Alan Waxman & Dr. Laura Fry	Muhima District Hospital	2



RURAL HEALTH CENTER TRIPS

Organized by our Rwandan partner and founder of Breast Cancer Initiative East Africa (BCIA), Philippa Decuir, arranged for our team of WHH volunteers to travel to two rural health centers. The first visit was to Mumeya Rwantonde Health Center between June 2 - June 3, 2021, where 5 volunteers (two physicians, one social worker and two support staff) brought two suitcases filled with medical supplies and provided basic training on cervical cancer and mental health. The second visit was to Huyange Health Center between June 4 - June 5, 2021, where 2 volunteers (one physician and one social worker) brought another two suitcases filled with medical supplies, and provided basic mental health training and medical assistance. These visits were essential to our partner, PINCC, as their Executive Director is considering implementation of a cervical cancer program in Rwanda at the end of 2021.



Dr. Toni Brayer's Summary of Health Center Visits

Volunteer members of the Worldwide Healing Hands team visited 2 rural clinics, about four hours driving from Kigali. We delivered four suitcases filled with medical supplies that they had requested. The first health center was quite remote and supports a large catchment area for all basic medical care and maternity. Unlike the surrounding village, the center had water and electricity, and was staffed by nurses and a visiting doctor. The closest hospital is 1 hour away and the roads are rough, but the clinic does have one ambulance. The local health workers (laypersons) welcomed us with their community leaders and we educated them on



cervical cancer and “one-visit” screening and treatment. Our Internal Medicine physician volunteer saw patients briefly in the clinic.

Site visits and engagement of the local health leaders for further training and education was done with formal presentations about cervical cancer screening and the treatments that can prevent deadly cervical cancer. In addition to these presentations, a social worker volunteer gave a presentation about the effects of cancer on women, families and the community, and offered to train



local health workers in psychological support so they could educate others.

Upon hearing that our partner, PINCC, is considering sites for potential cervical cancer programs, both health center clinic directors pledged space, offered to identify the most influential health workers and community leaders, and committed to providing at least 100 patients a day for screening and training as required by PINCC protocol. Both health centers expressed the dire need for this training and are anxious for

PINCC’s return in the latter part of 2021. Equipment and health records would be left behind after training to ensure sustainability. The team would also follow-up on a regular basis.



CERVICAL CANCER PROGRAM EVALUATION

After completing the cervical cancer training program, WHH sent a Google Survey evaluation to all residents and faculty who attended the lectures and simulations. This survey was conducted using a sliding scale, ranging from 1 (Needs Improvement) to 5 (Excellent), and received 22 responses. This survey was conducted anonymously and the results are below.

<u>Lecture</u>	<u>Evaluation Results</u>
Epidemiology of Cervical Cancer	16 respondents - Excellent (5/5) 6 respondents - Great (4/5)
Natural History of HPV Transformation	13 respondents - Excellent (5/5) 9 respondents - Great (4/5)
Screening with VIA	16 respondents - Excellent (5/5) 5 respondents - Great (4/5) 1 respondent - Good (3/5)
Colposcopy	15 respondents - Excellent (5/5) 7 respondents - Great (4/5)
Thermal Ablation	17 respondents - Excellent (5/5) 4 respondents - Great (4/5) 1 respondent - Good (3/5)
LEEP	13 respondents - Excellent (5/5) 8 respondents - Great (4/5) 1 respondent - Good (3/5)
<u>Simulations</u>	<u>Evaluation Results</u>
Colposcopy	15 respondents - Excellent (5/5) 6 respondents - Great (4/5) 1 respondent - Good (3/5)
Thermal Ablation	14 respondents - Excellent (5/5) 6 respondents - Great (4/5) 2 respondents - Good (3/5)
LEEP	14 respondents - Excellent (5/5) 6 respondents - Great (4/5) 2 respondents - Good (3/5)

Overall, the vast majority of respondents rated WHH's training program as excellent and when asked to leave comments, the most frequent request was that our course be made sustainable through biannual or quarterly visits from our team. Additionally, residents requested that more time be spent performing simulations, training be expanded to include faculty and trainers at district hospitals, and to have more time allocated to practicing cervical cancer screening.



WHH ACCOMPLISHMENTS

- WHH met with Dr. Diomede, Dr. Stephen, and the Hospital's Director General, Dr. Theobald Hategekimana, to cement the partnership between WHH and The University Teaching Hospital of Kigali
- Provided lectures on Epidemiology of Cervical Cancer, Natural History of HPV Transformation, Screening with VIA, Colposcopy, Thermal Ablation, and LEEP
- Trained 40 OB/GYN residents and faculty to perform colposcopy, LEEP, and thermal ablation
- Identified OB/GYN residents to continue cervical cancer prevention training in our team's absence
- Shared all cervical cancer teaching materials and video resources with trainers
- Conducted a course evaluation to determine how to best implement this training program at CHUK in the future
- Administered care to 44 patients at CHUK and Muhima District Hospital
- Donated 2 portable EVA colposcopes to CHUK (value \$7,255)
- Donated 3 LUCIA models to CHUK (value \$652)
- Donated 1 MamaNatalie birthing simulator to CHUK (value \$1000)
- Donated 1 LUCIA model to Dr. Tal Refaeli Yehouday (value \$200)
- Conducted two rural health center visits to spread awareness of cervical cancer with the aid of our partners, Philippa Decuir of BCIA and Dr. Melissa Miskell of PINCC
- Donated 2 suitcases full of medical supplies and cervical cancer education materials to Mumeya Rwantonde Health Center
- Donated 2 suitcases full of medical supplies and cervical cancer education materials to Huyange Health Center
- WHH met with the head of Rwanda Rotary, Victor Nkindi, and his project manager, Nadia Mutoni, to begin the process of securing a Global Grant to aid in Rwanda's effort to eradicate cervical cancer. Rwanda Rotary will use Global Grants to fund a campaign that would spread awareness of cervical cancer by targeting specific demographic groups with audio cell phone messages.



TRAVEL INFORMATION AND COVID IMPACT

Nine WHH volunteers left on May 28th, 2021 from San Francisco International Airport and flew to Kigali, Rwanda via KLM Airlines. Dr. Melissa Miskell flew from Texas and met us in Amsterdam on our final flight to Kigali. Dr. Alan Waxman, flying out of New Mexico, and Dr. Laura Fry, flying out of New Hampshire, left for Kigali May 27th, 2021 and met the team at the hotel upon our arrival. Dr. Charlyn Belluzzo left the U.S. June 3rd, 2021 from Seattle and met our team in Kigali on June 5th. Visas for Rwanda were obtained for \$60 at the airport, and the border to Uganda was closed due to Covid-19.

Covid-19 Impact

The Covid-19 pandemic caused many problems throughout this mission. Every member of our team was fully vaccinated and received negative Covid-19 PCR test results within 72 hours of our departure, however SFO required that our team be tested again prior to boarding. The Covid-19 RT-PCR tests cost \$250 each and it took approximately an hour to receive results. Covid-19 test results were checked at the KLM check-in counter, at the international gate, upon arrival in Amsterdam, at the Amsterdam international gate, and again at Kigali International Airport. Additionally, passengers flying into Rwanda were required to fill out a [passenger locator form](#) and had to take another \$60 Covid-19 test, conducted by the Rwanda Biomedical Center, upon arrival at the airport. After taking this test, our team was required to quarantine in a designated hotel for 12 hours until our negative results were released to the hotel.



During the mission, face masks were required in all public spaces; those caught by police in violation of Covid-19 measures are arrested, fined 25,000 RWF, and must spend the night in the local stadium. The day before our tours in Rwanda, WHH volunteers were required to take a \$12 Covid-19 Rapid Test. The day before our departure from Rwanda, volunteers were required to take a \$50 Covid-19 RT-PCR test. Both tests were organized by our hotel and conducted in their Retreat location. The RT-PCR test results were checked at Kigali International Airport, in Amsterdam, and upon arrival at San Francisco International Airport.

CHALLENGES AND POSSIBLE SOLUTIONS

- Raising awareness about screening and prevention of cervical cancer among health care workers (physicians, midwives, nurses and community workers) is the most immediate need. While this mission focused solely on training OB/GYN residents and faculty, the next mission will expand this group to include nurses and midwives.
- Awareness of cervical cancer needs to be raised among women to encourage acceptance of screening and reduce fear/stigma. [Rwanda Biomedical Center's \(RBC\) National Cervical Cancer Program](#) has already begun to do this, and our partnership with Rwanda Rotary will also aim to raise awareness.
- More time practicing procedures through simulations is needed. On our next mission, WHH will bring more LEEP machines and work with other NGOs to arrange for prescreened patients to receive treatment during our time in Rwanda.
- More clinical days are needed. Now that we are aware of this need, our next mission will set aside more days for clinical work.
- Adequate training for nursing staff at CHUK is desperately needed to facilitate faster patient care. Training in room setup, reporting, and organization needs to be prioritized. For future missions to Rwanda, WHH will secure nurse volunteers to facilitate training for nursing staff at CHUK.
- CHAI committed to providing 3 thermo-coagulators and 3 LEEP machines. They provided 1 thermo-coagulator which was not functional and 1 LEEP machine with a broken loop. For future missions to Rwanda, WHH will not rely on CHAI to provide equipment and instead supply our own.
- The most common response from the post-course evaluation was that in-person training needs to be conducted at least semi-annually for the program to be sustainable. We are taking this request into consideration and have begun working with other NGOs to plan a potential trip back to Rwanda in January 2022.



MEDICAL SUPPLIES AND EQUIPMENT FOR THE MISSION

The WHH team carried 18 suitcases (approximately 900 pounds) of medical and surgical supplies including: medicine; sutures; surgical instruments; and training materials. Thank you to the generosity of the following donors for financial support, medical and surgical supplies, and other contributions:

<u>WHH Donations</u>	<u>Donation</u>	<u>Value</u>
Jane Whillhite	In honor of Shirley Hunt	\$35,000
Misc. Donors	Rwanda Medical Mission Donations	\$2,530
TOTAL:		\$37,530
<u>Organization Donations</u>	<u>Donation</u>	<u>Value</u>
Americares	Medical Supplies	\$748.33
Direct Relief	Medical Supplies	\$380.14
Liger/Cure Medical	Thermo-coagulator/Colposcope	\$5,000
MAP International	Medication & Sutures	\$11,661.84
TOTAL:		\$17,790.31
GRAND TOTAL:		\$55,320.31



WHH DONATIONS TO RWANDA

The following items have been donated by WHH to The University Teaching Hospital of Kigali (CHUK) and two rural health centers. These donations were made using the funds and resources provided by the donors listed on the previous page.

<u>Donation</u>	<u>Value</u>
CA Medical Association PPE	\$130.00
Ebay Medical Supplies	\$807.19
EVA Colposcopes	\$7,170.00
Lee's Sporting Goods Equipment	\$149.53
LUCIA Kits - Rice University	\$852.00
MamaNatalie Birthing Simulator	\$1,000.00
MAP International Donation	\$65.00
McKesson Equipment	\$841.58
Volunteer Jackets	\$160.77
Wristbands: Shirley Hunt	\$183.01
TOTAL VALUE:	\$11,359.08



MISSION SPECIAL THANKS

- All WHH volunteers who generously donated their time and paid for their own travel, meals, and housing. These missions could not happen without you!
- Dr. Diomede Ntsumbumuyange and Dr. Stephen Rulisa for being a vital part of creating this program and for arranging our in-country transportation. You both are incredible and we are looking forward to continuing our work with you!
- Our local volunteers who work all year long gathering and sorting our in-kind donations to prepare for our missions. Special thanks to Lisa Hutton and Carol Stahr.
- WHH Board Members: Shannon Gunier, Charlyn Belluzzo, Lou Lesko, Anthy O'Brien, Nell Shaul and David Santos for the countless hours they put into fundraising, organizing and planning this mission.
- All of our wonderful donors! A very special thanks to Jane Willhite, who was instrumental in funding this mission in loving memory of her dear friend, Shirley Hunt.

