MARIE STOPES BOLIVIA x WORLD VASECTOMY DAY

Provider Training and Vasectomy Campaign Report

November 1-6, 2021

Summary

From November 1-6, 2021, Dr. Michel Labrecque and Dr. John Curington trained four Marie Stopes International (MSI) Bolivia physicians on the No-Scalpel Vasectomy technique. The newly trained vasectomists are Dr. Claudia Marisol Huaygua Pacheco, Dr. Belen Bautista, Dr. Luis Pocoma, and Dr. Massiel Lima Gorena. As part of the training, the teams collectively provided 127 vasectomies. The average age of the men who received vasectomies was 31. Fifteen percent (15%) had one child, 36% had two children, 21% had three children, and 26% did not have children. Two clients (2%) had more than three children. Most of the clients had a college degree (55.3%), and everyone had completed at least secondary school. Slightly more than half (52.9%) were married.

Survey respondents solicited a vasectomy because of its high rate of efficacy, to protect their partner from other contraceptive methods that could harm them, and to share the responsibility of contraception. The major fears that respondents had ahead of the procedure were that the procedure would be painful (48.2%), that they wouldn't ejaculate or they would ejaculate less (14.1%) and that they wouldn't enjoy sex with their partner as much (12.9%). One-third (36.5%) of clients had no fears about getting a vasectomy.

Only one-third of respondents (33.7%) felt they had a right to have a vasectomy without consulting their partner first, with a slightly lower 29.2% saying a woman had the right to get a tubal ligation without consulting their partner first. In comparison, 65.2% of respondents considered both men and women to have the right to choose non-permanent methods of contraception. One-third of respondents (36%) felt women had the right to decide to have an abortion, with 5.6% saying they could only have an abortion if their partner agreed, and 2.2% saying women did not have the right to an abortion at all.

Training

Four Marie Stopes trainees participated in the training - Dr. Claudia Marisol Huaygua Pacheco from Sucre, Dr. Belen Bautista from La Paz, Dr. Luis Pocoma from La Paz, and Dr. Massiel Lima Gorena from Tarija. All of them are general surgical doctors (a term in Bolivia that refers to generalist physicians), and Dr. Luis and Dr. Massiel also work in Marie Stopes' mobile units. Some of the urologists Marie Stopes Bolivia has contracted with previously were invited to observe the technique as well.

For the first four days of the campaign, training days began with practice on models (see photos below). The first day, trainees spent the first half of the day watching presentation and practicing on models (Photo 1), then progressed to patients. The following three days, they worked on models for the first hour of the day (Photos 2 and 3), before spending the rest of the day performing vasectomies under supervision. Models were also used throughout during the week to demonstrate and practice specific gestures and maneuvers. Trainees learned and practiced administering anesthesia, the three-finger technique, lifting and capturing the vas, and exposition of the vas on the models. A detailed training schedule can be found in Appendix 1 and additional scrotal model photos can be found in Appendix 2.

Photo 1. Trainees practice on scrotal models during the first day

Photo 2. Trainee Dr. Massiel Lima Gorena practices on a Laval University scrotal model during the week

Photo 3. The Laval University scrotal

There were four procedure rooms adjoining a large central waiting room, and one comfortable recovery area with two new black electric recliners. Three of the procedure rooms were transformed from their standard use and were equipped and organized specifically for the training activities. This four-room set-up with a central waiting area was optimal as it allowed interaction between all trainers and trainees.

Teams consisted of one master trainer and two trainees on a rotating schedule to ensure each trainee learned alongside both master trainers and each of their peers. Trainees were likewise evaluated by their peers and the master trainers after each procedure to track progress. Each master trainer was assigned 12 cases per day, which were divided evenly among the trainees for 6 cases a day. The campaign consisted of 5.5 days of direct vasectomy provision, resulting in 33 planned supervised cases per trainee over the week. Five scheduled clients did not present for their scheduled appointment for a total of 127 vasectomy clients.

Initially, the master trainers administered the local anesthetic on day 1, 2 and 3. By confirming the anesthesia was well-administered, it enabled the trainees to be able to focus on learning the no-scalpel vas isolation/exposition and vas occlusion techniques while ensuring the client was comfortable. The trainees began administering anesthesia on Thursday, the fourth day.

All four doctors exhibited an ability to conduct vasectomies independently with various skill levels by the end of the week. The trainees were evaluated daily using detailed written spreadsheets (see Appendix 3). These spreadsheets had columns for each step of the procedure, allowing the trainers to focus on specific details needed to advance the skills of the trainees. Each day the trainers spent less time demonstrating the techniques, with more time spent observing, encouraging, and correcting with fine details. By the fifth and sixth days, the trainers had the goal of not putting on sterile gloves during the majority of the cases, and this goal was achieved. The trainees were able to work essentially independently. At the end of each training day, trainers and trainees met for

30- to 60-minute debriefing sessions. They reviewed new skills practiced during the day, what went well and what to improve, and planned specific skills to practice over the next days.

On the fifth day, there was a morning lecture on possible complications the trainees will see in their practice, and how to manage such complications. On the last day, case selection criteria were emphasized such that the trainees would recognize their limitations and not attempt cases that they are unlikely to be able to complete. The goal, as with any procedure, is to proceed humbly and safely and to advance to the more challenging cases only as skills evolve. Given the elective nature of a vasectomy, and the understanding voiced by the trainees, Dr. Curington and Dr. Labrecque felt the trainees were competent to continue performing vasectomies, and will be able to expand their skills with more experience. They revised the MSI Clinical Competency Checklist – No-Scalpel Vasectomy v 3.0 to incorporate training on the mini-needle anesthesia and thermal cautery and fascial interposition occlusion technique. Dr. Curington and Dr. Labrecque completed a revised form for each trainee. They recommended that trainees continue to work in pairs for their first 100 vasectomies each, after which they will record and send a video to Dr. Curington and Dr. Labrecque for review and feedback.

One of the keys to the success of the training session was the copious preparation that occurred months previously. Dr. Labrecque and Dr. Curington reviewed the instruments by having the staff send photographs. They also had the clinic order 30-gauge needles to ensure comfortable anesthesia, and vicryl suture to provide the least inflammatory fascial closure. It was clear that there was support on all levels of Marie Stopes. From the country director, Ana Cecilia Velasquez Rossi, to the National Clinical Quality Lead, Silvia Velasco Parihuana, all the way down to the staff who ran the autoclaves and prepared the rooms, details were addressed and equipment was prepared before the arrival of the training team. The nurses who sterilized instruments, managed gowns and drapes, and prepared the clients before entering the room facilitated rapid turnover and high efficiency client flow. The nursing staff were also eager and willing to learn how to handle some of the new equipment including the cautery tips and dissecting forceps to ensure their longevity. This made an immense and positive difference to the flow of the week.

Although the instruments were reviewed ahead of time via photographs, the tools were not sharp enough to facilitate easy exposition of the vas. Some of the dissecting forceps were blunt and had unequal arms. Although this made some of the procedures more challenging on the first day, it also provided an opportunity for Dr. Curington and Dr. Labrecque to demonstrate sharpening and best practices for maintaining instruments.

Trainee feedback was overall very positive. They rated the presentations and the practicing with models very highly. They indicated that the presentations and models were very helpful as introductions before the actual hands-on training. They appreciated learning the technique in phases, and were pleased with the system of rotating between trainers and mixing up the pairs of trainees. Their feedback indicated the structure of the training flowed well, and that each component added to their learning. Peer and trainer evaluations served as a useful tool to draw their attention to the various steps of themselves and their peers.

Preliminary Client Results

As of the end of the vasectomy training on Saturday, November 6, 2021, 89 clients had responded to the survey. The average age of the men who received vasectomies was 31. Twenty-six percent (26%) did not have children, 15% had one child, 36% had two children, 21% had three children, and 2% had more than three children (Figure 1).

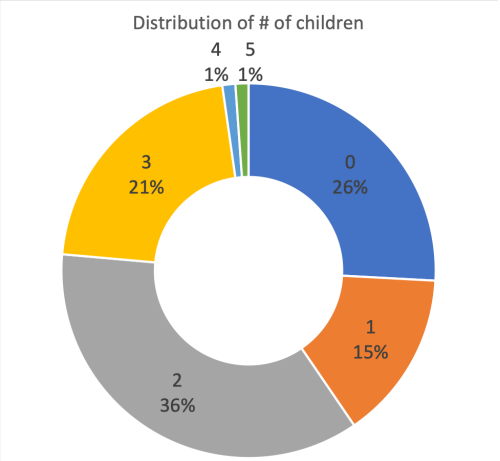


Figure 1. Distribution of the number of children of vasectomy clients

Most of the clients had a college degree (55.3%), and everyone had completed at least secondary school. Slightly more than half (52.9%) were married.

Survey respondents solicited a vasectomy because of its high rate of efficacy, to protect their partner from other contraceptive methods that could harm them, and to share the responsibility of contraception. The top three reasons that people gave for not wanting to have more children were "simply desiring the number of children I have" (48.2%), "the impact of over population and climate change" (28.2%), and "the cost of additional children" (25.9%).

Only four respondents (4.7%) considered the procedure to be completely reversible, with 59.8% thinking the procedure is not at a reversible, and 34.5% thinking the procedure is reversible but there is no guarantee that they will be able to have children.

The vast majority of people (87.2%) found the campaign through the Marie Stopes Bolivia Facebook page. A few (30.2%) also heard about it from friends and family. More than a third of respondents (38.2%) had attempted to seek a vasectomy elsewhere, principally at CIES. The major barrier to access was cost, with 29.1% listing cost as the reason they were not able to get a vasectomy.

Most respondents did not know someone who had had a vasectomy (67.8%). Of those who did know someone, only eight respondents (19%) said that was the person who recommended they get a vasectomy.

The major fears that respondents had ahead of the procedure were that the procedure would be painful (48.2%), that they wouldn't ejaculate or they would ejaculate less (14.1%) and that they wouldn't enjoy sex with their partner as much (12.9%). One-third (36.5%) of clients had no fears about getting a vasectomy. About half of respondents (51.7%) hope having a vasectomy will cause their partner to feel safer by removing the risk of pregnancy.

Only one-third of respondents (33.7%) felt they had a right to have a vasectomy without consulting their partner first, with a slightly lower 29.2% saying a woman had the right to get a tubal ligation without consulting their partner first. One in six respondents (16.9%) felt that neither men or

women had the right to decide to use a permanent method of contraception without consulting their partner. In comparison, 65.2% of respondents considered both men and women to have the right to choose non-permanent methods of contraception.

One-third of respondents (36%) felt women had the right to decide to have an abortion, with 5.6% saying they could only have an abortion if their partner agreed, and 2.2% saying women did not have the right to an abortion at all.

Client Motivations

There was a notably high rate of young and childless men that came to get a vasectomy during the campaign. It is likely that advertising the campaign through humorous videos on social media resulted in the recruitment of a younger population. This has been the case in other countries during World Vasectomy Day campaigns, such as in Mexico in 2017 when 17% of clients who came during the two-day campaign were childless, which was a substantial increase from their standard demographics. But we also heard repeatedly that the state of the world is having an impact on the desire to have many children, or children at all. People both with and without children were concerned that a first or an additional child would suffer in light of ongoing social unrest, economic instability, and the COVID-19 pandemic. Major categories of motivations were:

- Already have the number of children they wanted
- Desire to care for their spouse/share the responsibility for family planning
- Concerns about the ability to financially care for a child
- Concerns about the state of the world, and that children might suffer
- Concerns about depleting natural resources and the effect on the planet of over population
- Already caring for someone and feel responsible to them
- Simply don't want kids

Some de-identified examples of clients with varying rationale are listed below as follows

With Children

Man 1:
He already had 3 children, and he and his partner don't want any more. He wanted to get a vasectomy to protect his wife, as she has already managed family planning and the births of their children. She also had a bleeding issue during their last pregnancy, and he knows it would be dangerous if she were to get pregnant again.

Man 2:
He has 2 children, and said he feels a sense of responsibility to keep children from suffering. He noted that when he was younger, he wanted 3 or 4 children, but now with COVID and the state of the world, feels like it is only responsible to have 2 children at most.

Note: The vast majority of clients who came for a vasectomy were clients like Man 1 and 2. They commonly had between 1-3 children already and after considering tubal ligation and vasectomy,

decided to get a vasectomy because it was simpler than a tubal ligation, and because they considered it the noble and responsible thing to do. Some men with children also cited the state of the world.

Without Children

Man 3:
A 25-year-old documentary photojournalist didn't want to have children, because he wants to be able to travel freely for his work. He feels it would be prohibitively difficult to bring children on trips and irresponsible to leave them at home all the time. Not having children is also aligned with his desire to care for the environment.

Man 4:
A 29-year-old who volunteers in a pediatric oncology ward and with children experiencing homelessness. He wants to continue being able to dedicate his time to caring for these children, rather than having children of his own.

Man 5:
A 23-year-old whose father left and mother died. He and his siblings raised themselves, and they all felt that it would be irresponsible to bring a child into the world that might have to suffer as they have. His sister has already had a tubal ligation.

Man 6:
A 24-year-old whose parents had a child late in life. His parents are older, and he's worried they won't be able to care for his sister fully. He considers it his responsibility to help raise her, and to ensure he has the capacity to care for her, he is removing his chance of an unplanned pregnancy. He tried to get a vasectomy at CIES but they tried to talk him out of it because of his age.

Man 7:
A 24-year-old who has been thinking about getting a vasectomy for three years, and seriously for the last year in large part because of the pandemic. He works in the informal sector, and seeing how unstable it is, feels like it's too big a risk to have children. He noted society often focuses on having children, not on raising children well, and he questioned his ability to raise children well. He also cited wanting the ability to make his own decisions and control his own life as a central desire.

Man 8:
A 19-year-old who has never wanted children. He lived with his sister for a while and hated the experience of being around her children. He described being afraid of them, and is certain that he does not want to have kids of his own.

Many of the childless men were clear that their life circumstances might change. Many said that even if they had a new partner, they would only want a partner who supported their decision. Of note, many mentioned an intention to adopt if they changed their mind, rather than seek a reversal.

Vasectomy Campaign

In addition to the provider training, an online campaign was organized throughout the week to increase awareness of and information about vasectomy services. This included announcements about the vasectomy campaign (Photo 4), clever promotional advertisements (Photo 5), and a Facebook live where Dr. Esgar Guarín answered questions. Facebook postings were widely shared, and as noted above, the majority of vasectomy clients who responded to the survey learned about the campaign through the Marie Stopes Bolivia Facebook page.

Photos 4 & 5. Facebook advertisements for the vasectomy campaign

Alongside this campaign, an event was held for sexual and reproductive health advocates and providers in Bolivia, called "VasectoMITOS" or vasectomy myths (Photo 6). Event attendees included urologists from around Bolivia, representatives from ProMujer, CIES, Plan International, CECI, InnovaSalud, Servicio Pluri Nacional de la Mujer (a government agency as part of the Ministry of Justice), Organon, UNFPA Bolivia, SEDES La Paz (state health department), and Sinergía, hosted and moderated by Angel Cariaga. The event included a panel presentation, featuring Dr. Alberto Castro from UNFPA, Ana Cecilia from Marie Stopes Bolivia, and Alison Hoover, John Curington and Michel Labrecque from World Vasectomy Day.

Photo 6. VasectoMITOS event hosted by MSI Bolivia

Infection Control Procedures

At the beginning of the week, MSI was administering intramuscular ceftriaxone prophylactically. This was of concern to Drs. Curington and Labrecque. Neither administer prophylactic antibiotics before vasectomy, citing the lack of evidence to support the need and the potential for harm. Intramuscular ceftriaxone was also seen as contributing to antibiotic resistance in Bolivia. The risk of resistance combined with the lack of evidence of the benefits of prophylactic antibiotics led to a productive discussion with MSI. On Friday afternoon, MSI shifted from intramuscular ceftriaxone to a less intensive oral cefalexin. MSI will continue monitoring clients who did and did not receive intramuscular ceftriaxone as part of validating and adjusting their own internal protocols.

MSI protocols also include a requirement that clients undress completely from the waist down and don a gown for the procedures. Drs. Curington and Labrecque both use an approach where the clients' pants and underwear are around their ankles for the procedure, reducing the preparation time required and setting a more informal tone for procedures. They recommended MSI reevaluate the need for undressing and donning a gown.

Lastly, MSI uses scrubs, hairnets, and shoe covers for any staff entering procedure rooms. Although the cost of doing so is minimal, the shoe covers posed a not insignificant slip risk, and the infection control benefits of such protocols are negated when the client is not asked to do likewise, and the fidelity of the hairnet is variable.

Next steps

Trainees will conduct 200 vasectomies in teams of two (100 vasectomies each) before conducting vasectomies on their own. Clinical staff with continue to monitor complication rates, with the goal of continuing to provide minimally invasive vasectomies with minimal complications. The trainees

have joined an international online forum of vasectomy providers as a resource to discuss complex cases (Google Vasectomy Network) and to continue learning and honing fine details of the vasectomy technique. Survey data collection will continue, and MSI Bolivia will pursue Institutional Review Board approval toward being able to publish these findings in an academic journal. Discussions will also continue regarding optimal evidence-based infection control protocols. Eventually, as the four trainees gain more experience and expertise, they will train other physicians to expand the availability of vasectomy in MSI clinics throughout Bolivia.

Alison Hoover, MPH
John Curington, MD
Michel Labrecque, MD PhD

November 23, 2021

Appendix 1: Training Schedule

Horario para la capacitación en vasectomía

01-nov	8h00- 8h15	introducción				
	8h15- 8h45	vasectomía basada sobre evidencia				
	8h45- 12h00	Practicar con modelos de vasectomía				
		casos clínicos				
	13-16	John		Michel		
		Luis	Massiel	Belen	Claudia	
		3	3	3	3	
	17 -18h	revisión				
02-nov	8h -9h	Practicar con modelos de vasectomía				
	9-13h	John		Michel		
		Luis	Claudia	Belen	Massiel	
		3	3	3	3	
	14-17h	3	3	3	3	
	17 -18h	revisión y correcciones				
03-nov	8h -9h	Repasar y practicar con modelos de vasectomía				
	9-13h	John		Michel		
		Belen	Massiel	Luis	Claudia	
		3	3	3	3	
	14-17h	3	3	3	3	

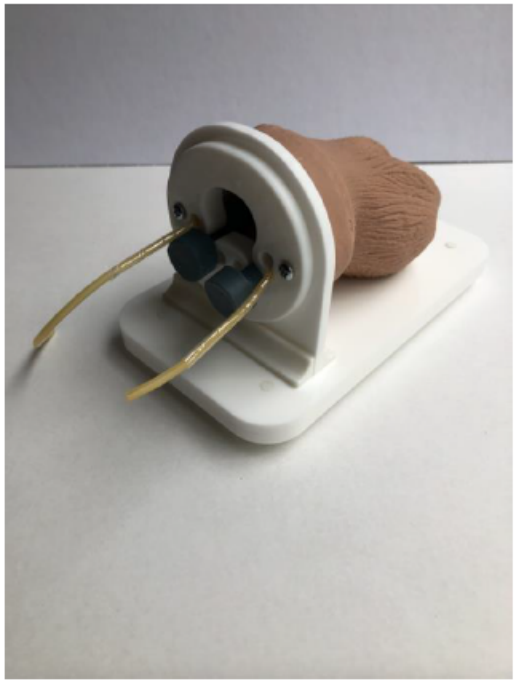
	17 -18h	revisión y correcciones			
04-nov	8h -9h	Repasar y practicar con modelos de vasectomía			
	9-13h	John	Belen	Michel	
		Belen	Claudia	Massiel	Luis
		3	3	3	3
	14-17h	3	3	3	3
	17 -18h	revisión y correcciones			
05-nov	8h -9h	Repasar y practicar con modelos de vasectomía			
	9-13h	John		Michel	
		Massiel	Claudia	Belen	Luis
		3	3	3	3
	14-17h	3	3	3	3
	17 -18h	revisión y correcciones			
06-nov	8h -9h	Taller : complicaciones pos-vasectomía			
	9-13h	John		Michel	
		Luis	Belen	Massiel	Claudia
		3	3	3	3
	13h-14h				
	14-17h	3	3	3	3
	17 -18h	revisión, correcciones, felicitaciones y adelante!			
		33	33	33	33

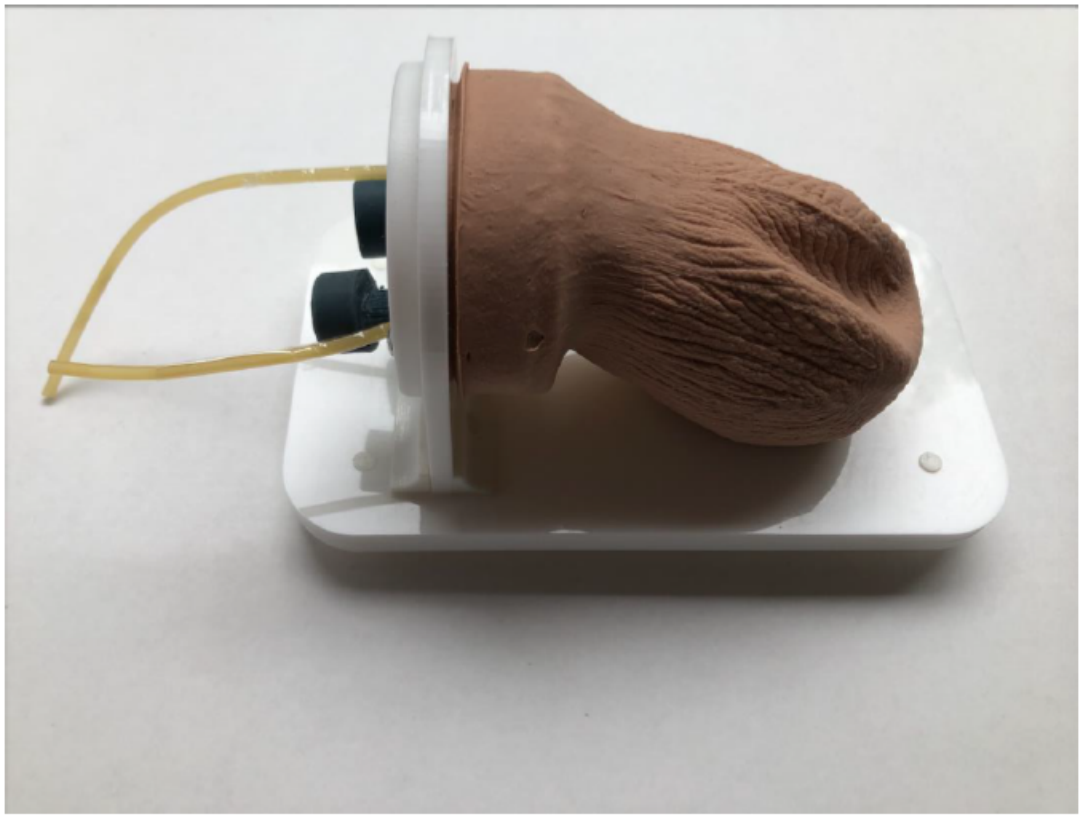
Appendix 2: Additional Scrotal Model Photos

MARIE STOPES BOLIVIA
Hijos por elección, no por azar

An Act Of Love
World Vasectomy Day

UNIVERSITÉ LAVAL





Appendix 3: Evaluation Form

Validación de la realización de la técnica de vasectomía sin bisturí con cauterización e interposición de la fascia

Fecha:
Lugar:
Nombre del evaluador:
Nombre del cirujano:

Caso	Anestesia	Fijación del conducto	Toma del conducto	Cauterización	IF	Hemostasia	Observaciones
1							
2							
3							
4							
5							
6							
7							

Coloque una marca de verificación si el elemento técnico tiene éxito de acuerdo con las siguientes definiciones:
Anestesia : el paciente no siente ningún dolor durante la cirugía
Fijación del conducto : Conducto fijo a la piel rápidamente / comprobar el vaso en la pinza de anillo y hacer el ajuste según sea necesario
Toma del conducto : salir de un solo paso y completamente desnudo
Cauterización : fácil inserción del cauterio en el lumen y cauterización adecuada (comienzo del cambio de color del conducto deferente)
Interposición fascial (IF): ligadura que cubre el segmento de la próstata e incluye la porción posterior de la fascia del segmento testicular
Hemostasia : segmento testicular completamente denudado, ligadura adicional según sea necesario, sin sangrado visible
Observaciones:Indique cualquier comentario relevante para facilitar la retroalimentación y / o explicar el fracaso / éxito de un artículo en particular