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Panamerican Trauma Society: The first three decades

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ABSTRACT: Panamerican Trauma Society was born 30 years ago with the mission of improving trauma care in the Americas by exchange of ideas and concepts and expanding knowledge of trauma and acute illness. The authors, immediate-past leaders of the organization, review the evolution of this assembly of diverse cultures and nationalities. (*J Trauma Acute Care Surg.* 2017;82: 966–973. Copyright © 2017 The Author(s). Published by Wolters Kluwer Health, Inc. on behalf of the American Association for the Surgery of Trauma.)

It is now 30 years since the Panamerican Trauma Society (PTS) was born. The three decades of its short existence has been quite eventful in growing pains, adolescence, maturation, and accomplishments. It is an interesting tale of people of various languages, nationalities, backgrounds, and race coming together to improve the care of the critically injured and ill surgical patient in the hemisphere. It is a journey of international collaboration in global surgery and improvements in surgical care of low and middle income countries (LMIC). The scope has extended now to distant continents.

The first author of this communication has had the privilege of participation in this great odyssey, first as a young surgeon and a charter member, climaxing to the last 6 years of executive directorship. The authors have just finished their official posts of executive director and immediate past-President of the Society, respectively. Our objective is to document the Society's journey from its infancy to the current status of adulthood. The intention is not in the least self-aggrandizement, but to weave the evolution of a multinational society in the current era of increased enthusiasm for issues of global surgery. It is a tribute for the many, many individual members, board of managers, committees and their leaders who collectively should be credited with the current standing of the Society. We hope that this may also serve as the baton to pass on to the incoming generation and leadership.

The Birth

PTS was conceived over a lunch, in a restaurant in Mexico city named "Hacienda Los Morales" in 1987 during a Mexican Red Cross symposium. It was an inspired thought of Dr. Armando Baqueiro of Mexico, who proposed to create a Society

with the mission of improving the management of trauma patients in the American Hemisphere, North, Central, and South and consequently with the name, Panamerican Trauma Society. The visionaries included Drs. Baqueiro, Aurelio Rodriguez, Alejandro Grife, Garcia Morales "El Max," Gomez Palacio, Carlos Moreno, all Latin American surgeons of experience and repute (Fig. 1). Drs Aurelio Rodriguez and Francisco Holguin (from Colombia) travelled all through the Latin American world, presenting the proposition to create this Society. The idea met with unanimous approval. The Society was officially founded in Bogota, Colombia in 1989. The first officers and members met during the Annual Congress of the Federation of Latin American Surgical Societies (FELAC) in Ecuador and at that time Dr. Aurelio Rodriguez from Peru and the United States was appointed as the first president and Ricardo Sonneborn from Chile as the first vice president.

Infancy

The first Annual Congress of PTS was held in San Juan, Puerto Rico in 1988 with economic benevolence of its Governor. A further definition of the Board of Directors was accomplished. The second Congress was about to happen in 1989 in Puerto Rico. There was, however, an unwelcome intruder in the form of Hurricane Hugo. The Congress never materialized. Fortunately, both the Society and the stranded early visitors survived this adversity. The next year, the second scientific assembly of the Society was held in Sao Paulo, Brazil. The Brazilian group, lead by the distinguished Professor Dario Birolini and his group from Das Clinicas joined the PTS. The Brazilian collaboration is strong to this day. The next Congress in Buenos Aires, Argentina followed the first assembly of a newly formed Association of Trauma of Colombia in Bogota, Colombia. Since that time, the PTS matured and a Congress was held annually each November in various countries (Table 1). The three major non-US members of the PTS: Brazil, Colombia, and Argentina and their delegates, including professors Birolini, Holguin, and Rasslan were the earliest pioneers. Strong North American support was lent by Professors Rodriguez, Mulder, and Ernest Moore. Professors Feliciano, Hoyt, Maull, Mattox, Maier, and others soon joined to mature the PTS. PTS annual congresses gained an international reputation with the participation of leading health professionals in Trauma and Critical Care from around the world. The Society celebrated its silver (25th) anniversary

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Figure 1. The “lunch of inspiration” where the PTS was proposed. From left to right: Drs. Gomes-Palacios, Carlos Moreno, Armando Baqueiro, Aurelio Rodriguez, Alejandro Grife. Missing: Garcia Morales “ el max.”

TABLE 1. Annual Congresses, Presidents, and Aurelio Rodriguez Lecturers

Year	City	President	A Rod Lecturer	Topic
1988	San Juan, Puerto Rico	A. Rodriguez, (USA)		
1990	Sao Paulo, Brazil	D. Mulder, (Canada)		
1991	Buenos Aires, Argentina	E. Moore, (USA)		
1992	Guadalajara, Mexico	F. Holguin (Colombia)		
1993	San Jose, Costa Rica	D. Birolini (Brazil)		
1994	Cartagena de Indias, Colombia	C. Lucas (USA)		
1995	Salvador, Brazil	A. Baqueiro (Mexico)		
1996	Cartagena de Indias, Colombia	K. Maull (USA)		
1997	Miami, USA	R. Ferrada (Colombia)		
1998	Buenos Aires, Argentina	G. Gomez (USA)		
1999	Isla Margarita, Venezuela	D. Ortega (Peru)		
2000	Ciudad de Panama, Panama	D. Feliciano (USA)		
2001	Monterrey, Mexico	J. Neira (Argentina)		
2002	Sao Paulo, Brazil	R. Ivatury (USA)	Ricardo Ferrada (Colombia)	Education and Trauma
2003	Lima, Peru	S. Rasslan (Brazil)	Gerardo Gomez (USA/Venezuela)	Sepsis, what is new?
2004	Miami, USA	S. Briggs (USA)	Donald Trunkey (USA)	Violencia, Drogas y Trauma en el Hemisferio Occidental: Una solution alternative.
2005	Guayaquil, Ecuador	J. Lombardi (Chile)	Ernest Moore (USA)	Blood substitutes in Trauma
2006	Cartagena de Indias, Colombia	D. Hoyt (USA)	C. Willam Schwab (USA)	The winds of war
2007	Puebla, Mexico	C. Morales (Colombia)	Jorge Neira (Argentina)	Nuevos aspectos en la resucitación de volumen en la atención inicial del paciente traumatizado
2008	Campinas, Brazil	A. Peitzman (USA)	Raul Coimbra (USA/Brazil)	Trauma as a Disease: The public’s perception
2009	Caracas, Venezuela	J. Garcia (Venezuela)	Renato S. Poggetti (Brazil)	Trauma prevention
2010	Montevideo, Uruguay	R. Coimbra (USA)	Ronald Maier (USA)	Molecular and genetic aspects of the response to trauma
2011	Asuncion, Paraguay	R. Pogetti (Brazil)	Armando Baqueiro (Mexico)	The evolution of teaching and management of Trauma in Mexico in the last 25 years
2012	Medellin, Colombia	J. Puyana (USA)	Ethan Nadelmann (USA)	Why we need to end the war on drugs
2013	Santiago, Chile	A. Pacheco (Chile)	Ricardo Sonneborn (Chile)	Origin and destination in trauma
2014	Panama City, Panama	M. Lorenzo (USA)	Stanley Motta (Panama)	Why trauma? A personal experience
2015	Santa Cruz, Bolivia	G. Fraga (Brazil)	Rao Ivatury (USA)	PTS: a look back and a look forward
2016	Maceio, Brazil	M. Aboutanos (USA)	Thomas Scalea (USA)	Mentoring the future Trauma Leaders: Implications for the Panamerican Trauma Society

in 2015 in Medellin, Colombia, in a proud display of science and culture with most of the Presidents in attendance. The PTS just finished a successful joint Congress with Sociedade Brasileira de Atendimento Integrado ao Traumatizado (SBAIT) in Maceio, Brazil in 2016.

Officers of PTS

As the Society was growing out of its infancy, the multinational and multicultural diversity of the organization became a prominent pillar of strength and a universally admired trait. All countries of South America and their existent trauma and surgical organizations began to participate and contribute to the shared mission of the Society. Where none existed, there was a new enthusiasm to form local organizations and join the PTS. Very early on, the Society decided to alternate the Presidency between distinguished North American and South American surgeons, and the tradition lives on today (Table 1 and Fig. 2). Each of these leaders over the past three decades reinforced the common mission, emphasized our identity among diversity, identified future goals for the Society, and inspired continued growth. The Presidents are assisted in their duties and responsibilities by an Executive Director. These two highest officers of the organization and their close partnership have been an essential recipe for the success of the Society. The persons who had the privilege

of this position are: Doctors Rodriguez, Holguin, Gomez, Maull, Peitzman and Ivatury. Doctor Scalea is the newly elected executive director and has taken charge since November of 2016. With a Board of Directors that was young and eager and a Secretary-Treasurer of indefatigable enthusiasm and energy, PTS made rapid strides in recruiting members and keeping the momentum flowing. Doctors Barba, Gomez, Peitzman, Puyana, and Aboutanos deserve immense credit for their tireless efforts as Secretary-Treasurers in bringing the Society to the 21st century. The current Secretary, Esteban Foainini is following their eminent example.

Offices of PTS

Initially located in Baltimore, thanks to the support from Dr R.A Cowley at The shock Trauma Center, the offices moved to Connecticut with a new secretary. The year 2003 was a significant game changer when Dr Peitzman took the Society to the University of Pittsburgh and nurtured it for the next 7 years. Under his leadership (as a secretary, president, and executive director) and Puyana (as a secretary and then as president), the PTS saw tremendous advances in membership recruitment, record keeping, streamlining of PTS educational courses, as well as updating the Society website. On November 12, 2010, the headquarters office was moved from Pittsburgh to the current



Figure 2. Presidents of PTS. Row 1 (L to R): A. Rodriguez, (USA), 1987–1989; D. Mulder, (Canada), 1989–1990; E. Moore, (USA), 1990–1991; F. Holguin (Colombia), 1991–1992; D. Birolini (Brazil), 1992–1993; C. Lucas (USA), 1993–1994; A. Baqueiro (Mexico), 1994–1995; K. Maull (USA), 1995–1996. Row 2 (L to R): R. Ferrada (Colombia), 1996–1997; G. Gomez (USA) 1997–1998; D. Ortega (Peru); 1998–1999; D. Feliciano (USA), 1999–2000; J. Neira (Argentina), 2000–2001; R. Ivatury (USA) 2001–2002; S. Rasslan (Brazil), 2002–2003. Row 3 (L to R): S. Briggs (USA), 2003–2004; J. Lombardi (Chile) 2004–2005; D. Hoyt (USA) 2005–2006; C. Morales (Colombia) 2006–2007; A. Peitzman (USA) 2007–2008; J. Garcia (Venezuela), 2008–2009; R. Coimbra (USA), 2009–2010. Row 4 (L to R): R. Pogetti (Brazil) 2010–2011; J. Puyana (USA) 2011–2012; A. Pacheco (Chile) 2012–2013; M. Lorenzo (USA) 2013–2014; G. Fraga (Brazil) 2014–2015; M. Aboutanos (USA) 2015–2016; C. Ordonez (Colombia) 2016–2017.

location in Richmond, at the Division of Acute Care Surgical Services, Department of Surgery, Virginia Commonwealth University (VCU) with a superb administrator, Ms Gladys Shanklin. PTS and VCU, under the benevolence of President Michael Rao and Dean Jerry Strauss MD, entered into a partnership, with the university providing significant financial assistance to the PTS office and its staff, and providing Continuing Medical Education (CME) for PTS congresses. The VCU President, Dean and Department Chairs of Surgery, Doctors Neifeld and Kasirajan attended PTS Congresses in 2012 and 2015, and bonded this relationship. In 2016, VCU School of Medicine formally signed a Memorandum of Understanding with PTS for continued financial support of more than \$250,000 annually, committed for another 3 years.

Maturation of the Vision or PTS

Over the past decade, PTS matured and entered its adulthood. Where it was a clinically focused organization, it has attained a trauma system oriented focus. Where once it was a congress-centered Society, it has become a society with a Congress. It was a nomad Society before with frequent migrations, it is now a university-based Society. In this maturation process, it has set a path to achieve financial independence and become solvent. The following narrative will attempt to illustrate some of this progress.

Membership Services

As of 2015, the Society membership has reached 21 Latin American and Caribbean countries and 6 others (Angola, Finland, Qatar, Netherland, Norway, Spain). Active efforts are under way to increase the membership from the initiative of committee chair Dr Maria Fernanda Jimenez.

PTS Website

PTS saw significant advances in its website development under the leadership of Drs. Peitzman and Puyana (2003–2010). With the movement of the PTS headquarters to Richmond, Virginia, in 2010, a crucial decision was made to set the PTS website independent of a University server and its obligatory firewalls. This allowed for an exponential advancement in the functionality of the website to serve the members of PTS. It provided an automated toggle system between its three languages (English, Spanish, Portuguese); an automated communication system (2011); an automated online payment system (2012); an automated on-line research competition, abstract submission and evaluation system (2013) and a Vimeo-based video hosting and sharing platform (2014) with the help of ex Vice president Daniel Ludi. This last feature was developed to make available the myriad of lectures from leading experts on trauma and emergency care. On-line CME, a mobile device display, news center, and social media links (2015–16) were recent enhancements.

The Educational Agenda of PTS

The shared mission of the members of the PTS is to improve the care of the critically ill or injured patients in the Americas, especially in South America. The Society aims to achieve this by its constant emphasis on continuing medical education and collaboration, with an energized education committee under the direction of Dr. Paula Ferrada.

The PTS believes that improvements in the care of the injured or ill patient, even in those countries with limited resources as in LMIC, is feasible and depends on organization and planning. It argues that education and practice-based learning through all of its courses will have a positive impact on patient management. The courses totaled to 136 from 2010 to 2015. They included Surgical Skills in Trauma, Ultrasound in Emergency and Trauma (USET) basic, USET Advanced, Advanced Disaster Medical Response course, World Health Organization (WHO) Quality Improvement Course, Basic Trauma Course for rural physicians/Nurses/Prehospital staff, Burn Course, Nursing Course, Air medical rescue course, Prehospital Course, among others. These courses are standardized and propagated by using information technology (Web-based) and also by social media.

The Aurelio Rodriguez Lecture

Given at the annual congress by invitation from the president, it was created to honor the founder, visionary and leader of the PTS. It is a tribute for his presence, contributions, and participation that provide the “glue” to keep the society united. The oration, on a contemporary topic, soon became a highlight of the congress (Table 1).

Involvement of Local Societies

The next initiative by the PTS is to involve local societies and help them organize educational activities, offering them PTS courses at reduced prices and providing help with faculty and materials. The PTS also acts as the parent organization to several trauma-focused organizations from South American countries.

Exhibition of Research and Publications From South America

It is well known that care of injury and surgical illness is overwhelmingly complex in its incidence and severity in these countries, even as the South Americans are recognized for their immense wealth of experience in these fields. Besides the adroit surgical skills that this experience brings them, they have developed many innovative, low-cost solutions in their clinical practice befitting their own economic conditions. Prime examples include the Borraez (Bogota) bag for temporary abdominal closure from Colombia, the Pogetti pack (for internal compression of missile tracts of the liver) from Brazil and the first endovascular abdominal aortic aneurysm repair (Parodi, Buenos Aires). Many such exciting developments take place every day in South America and the PTS provides these innovators an avenue to showcase their talents in Congresses and publications (the official Journal of the Society, Text books etc.).

PTS Research competitions held annually in the PTS Congress for attendings, residents and students have witnessed tremendous growth in the abstracts submitted to the Congress over the past 5 years (Fig. 3). There were a record 900 abstracts in 2016, leading to the Congress presentations of 80 oral and 300 mini-oral presentations. One entire session was dedicated to injury prevention. Coincidentally, the number of article submissions to the Society Journal, PAJTCCES has escalated with a steady, noticeable improvement in quality. Travelling scholarships for the winning abstracts are donations provided by past president Susan Briggs related to disaster management and in the area of injury prevention, past president Michel Aboutanos

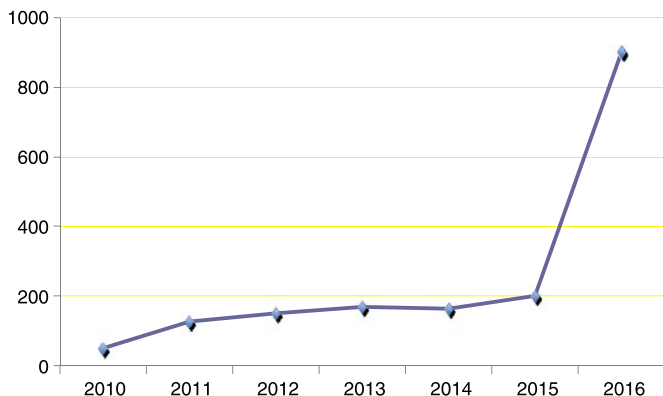


Figure 3. Number of abstract submissions for the annual congress 2010 to 2016.

and Dr. Terrence O’Keefe: shining examples of inspiration. Also impressive is the recent record of Colombian surgeons in successfully placing their abstracts in the extremely competitive oral presentations of the annual scientific meeting of the American Association of the Surgery of Trauma (AAST).

Publications of the PTS

PTS is active in publishing text books, manuals, and guides by its members. Many of them have been transferred to PTS ownership. Examples include: *TRAUMA*, undergoing a revision with a new edition, both in print as well as an e-book, expected in 2017; *Guidelines for Trauma Quality Improvement Programs* (along with the WHO) in English and Portuguese; *Manuals of USET Advanced* in Spanish; *USET and ADRM—Portuguese and Spanish*; *Burn—Quemados*, Spanish. Others published by PTS members were translated into Spanish, for example, *Abdominal Compartment Syndrome*; *Trauma Manual*; *US in the Intensive Care Unit (ICU)*; *Cuidado Intensivo Y Trauma*.

Journal

PTS has long maintained its own Journal, the Panamerican Journal of Trauma under the editorship of Doctor Ricardo Ferrada. After a hiatus in 2009, the Journal was resumed in 2012 with a new editorial board under the editorship of Ivatury and Jaypee publishers from India. Published quarterly as e-publication, it covers all aspects of trauma, critical care and emergency surgery. It aspires to be a vehicle for all PTS members to showcase their vast clinical experience and appears to be succeeding in this mission. More importantly, it has become a resource for the younger generation of medical students, residents and young faculty surgeons in their efforts at initiating scientific reporting. It also has become a conduit for publication of papers presented in research competitions at the annual congress. The editorial board promises to continue to attract clinical research based on the plentiful material that the PTS members are provided with and encouraging young surgeons and trainees to publish. Medline indexing by the National Library of Medicine is a vital goal that hopefully can be reached this year.

International Tele-Grand Rounds

Lead by Dr. Antonio Marttos, the University of Miami/Ryder Trauma Center has established the International Trauma

Tele-Grand Rounds. These are weekly case presentations telecast and discussed by trauma surgeons around the world, as an outstanding tool for education and sharing of medical expertise across borders. CME credits are available to eligible physicians. To date, there have been 42 participating institutions from the United States and around the world, ranging from academic medical centers to urban trauma centers, military, community and rural hospitals.^{1,2} The PTS has adopted the Tele-Grand Rounds as one of their educational activities. In an academic agreement, these conferences are advertised on the AAST website for member information and participation.

International Fellowships and Scholarships

PTS is involved in facilitating opportunities for young residents-in-training as well as junior surgeons to make use of the tremendous clinical material available in South and Central America and the science and art of trauma systems in North America. The objective of the fellowship is to improve surgical training for traveling fellows and to bring opportunities to the host institution regarding research and exchange. The North American scholars are benefited by coordinating their visit to a center of excellence in south or central America. There is a local expert hosting the visit and the PTS provides options for housing, necessary travel details, and logistics. Some recent winners of this international scholarships include residents from East Carolina University, University of Miami, Emory University and Indiana University. Examples of US traveling Fellows include work in Bolivia on the PTS Trauma Registry, Ultrasound in Cuba. These International Fellows received their funding from generous donations from individual members (Dr. Paula Ferrada) and Fellowship in Global Health at Feinberg SOM Center for Global Health under the guidance of Dr. Mamta Swaroop.

Host institutions in Latin region develop relationships with North American institutions, providing networking opportunities and to foster collaborative research and programs. The North American institutions participate in PTS International Observer Program (described below), as well as international research scholarship providing aspiring trauma surgeon scientists from the Latin Region the opportunity for training in health services research. Examples include research Fellow at The Center for Surgery and Public Health at Brigham and Women’s Hospital under the mentorship of Dr. Adil Haider with focus on functional Outcomes and Recovery after Trauma Emergencies.

Short-term rotations (3 to 6 weeks) are also available to South American physicians, nurses, paramedics, and students to visit trauma centers in the United States. They observe, audit, and experience trauma system development and operations, nuances of quality improvement activities and team development. The observer also gains insight into Trauma Performance Improvement Programs, trauma registries, Trauma Medical Audit Committee and the role of peer review committee analysis of preventable trauma deaths. At VCU alone, a total of 19 observers (from general practitioners to trauma fellows) made use of this opportunity, visiting from countries like Colombia, Brazil, Mexico, Chile, Ecuador and Sudan. Other centers such as University of Pittsburgh Medical Center and Alleghany Medical Center (Pennsylvania), Riverside County Regional Medical Center (California) and University of San Diego, Indiana University, University of Southern California and the PTS and its

18 affiliated societies and universities such as “El Valle University” in Cali, Colombia, are actively involved. In the past, many trauma fellows from Shock Trauma in Baltimore, trauma surgeons from Israel and others spent 1 month under the tutelage of Dr Ricardo Ferrada at Cali, Colombia, for a remarkable exposure to challenging trauma cases. Glowing testimonials of this experience were reported by Knuth, Ferrada, and others.³⁻⁷

Paramedic Exchange Program

Emphasis on prehospital care, training and development in the Latin American region became an important mission of the society with dedicated prehospital subcommittee, courses, and sessions at the annual congress, and the development of Paramedic Exchange program. In 2014, The Virginia Association of Volunteer Rescue Squads (VAVRS) and PTS, under the leadership of Jane Laverne (USA) and PTS prehospital committee Chair, Dr. Andres Rubiano, developed a Prehospital Exchange Program between prehospital personnel of the state of Virginia and the personnel of various cities from Colombia. In this reciprocal exchange, paramedics shared invaluable first-hand knowledge and tactful training in emergency response in both high and LMIC settings. These exchanges were further enhanced by dedicated short term rotations with Richmond Ambulance Authority, and the Virginia State Office of EMS.

Trauma Leagues

Academic Leagues have emerged in Brazil as a teaching experience in the early 1990s, consisting of student associations under the mentorship of a supervising teacher. Started by Dr Mario Mantovani in Campinas, Brazil and nurtured by past president of PTS, Gustavo Fraga, Trauma League from UNICAMP (University of Campinas), and other nine Trauma Leagues formed Congresso Brasileiro das Ligas do Trauma (CoBraLT) in Brazil.⁸ They focus on trauma concepts and emergency care and expose the students to the ED, OR and prehospital areas. Similar leagues have been started in USA (Pittsburgh, Richmond).

The first Ecuadorian trauma and emergency league (LATE) was created in 2013 and coincided with the inauguration of a brand new Emergency Medical Service (SIS ECU 911). LATE started work on four main areas: prevention and promotion in the trauma field, medical education and investigation, discipline and control committee. The excitement of LATE was evidenced by the growing interest (number of students wanting membership increased: 113 in 2013 and 400 in 2014). Only 45 and 42 were admitted. The current membership totals 80 and produced 28 successful projects, : suture and anesthetic block workshop and First Aid in Trauma, basic trauma course of PTS, “Respect to 911 call” to prevent false calls to the EMS, “become a blood donor,” educating high school students about the first responder role (612 students). Other accomplishments included: outreach to nearly 5000 people, five publications, 16 Training Courses, 14 Promotion Campaigns, 10 Oral presentations, three PTS International Travel Grants, first place oral presentation in 2013 PTS Congress in Panama and 20 research projects (17 completed).

Colombia is the latest country seeing the rise of trauma leagues titled Liga de Trauma y Emergencias del Pacifico. They are located in Cali under the guidance of Fundación Valle de Lili and current President of PTS Carlos Ordonez. It has more than 50 medical students, all of them members of the PTS.

The student body of the trauma leagues is growing not only in numbers, but also in participation in local and international congresses with improving quality of academic participation. Admittedly, Trauma Leagues are not an original PTS initiative. Many of the leagues and international student organizations, however, are members of PTS and now find their international meeting ground and networking at the PTS annual congress. PTS is proudly involved in carrying this great movement of the youth forward and creating robust opportunities for its escalation.

Registry

Changing the trajectory of the colossal casualty of trauma requires preventative strategies informed by injury surveillance and risk factor identification. A lack of reliable data leaves the magnitude of the injury problem largely unknown in many LMICs. Trauma registries promise to fill this void by capturing important information about the continuum of the patients' care, as well as serve as a tool to oversee quality of care. Despite widespread recognition of the value of trauma registries and their extensive adoption in developed countries, only 50 registries across 21 LMICs are documented in the literature.⁹ This enormous burden of injury in LMIC needs to be defined in its nature and magnitude. It substantiates the words of Margaret Chan, Director General of WHO, “[t]he real need (in global health) is to close the data gaps, especially in low and middle-income countries, so that we no longer have to rely heavily on statistical modeling for data on disease burden”.¹⁰

PTS, with assistance from the International Trauma System Development Program (ITSDP) at Virginia Commonwealth University (VCU) has been a pioneer in this field having developed a Trauma Registry for this purpose. Initial implementation in countries, such as Ecuador, Colombia, and Panama has lead to collection of sizable data and many analytical reports from these countries.¹¹⁻¹⁴ Recent advancements to the initial versions of the registry have been impressive: availability of desktop and laptop versions, mobile friendly and scalable design and compatibility with multiple devices such as smartphones, iPads, and other tablets. The modular system and database design allows speedy customization. Logical grouping of elements allows turning on and off of elements at the tier level. Prehospital tier captures a total of 22 data points, essential elements tier captures 27 data elements corresponding to the minimum number of data points needed to support a trauma quality program and Tier 2 includes additional elements and ICD 10 coding. A full registry has 250 data elements for comprehensive capture of injury data at various levels of health facilities (basic, general hospitals, definitive referral centers). ITSD undertakes the set-up, implementation and roll-out of the registry in interested countries. It is poised to become more wide-spread. Eventual progression to a Panamerican Trauma Data Bank is a hopeful outcome.

International Collaboration

PTS has been continually pursuing collaboration with international trauma organizations and societies; In the past 5 years, collaboration was established with the Trauma Association of Canada, the Eastern Association for the Surgery of trauma, the World Society of Emergency Surgery, and the Trauma Center Association of America. In 2013, PTS became an official member of the World Health Organization 's Global Alliance for

the Care of the Injured. That same year, it became a member of the World Trauma Coalition and participated in all the three world congresses. Most notably, an Memorandum of Understanding with the AAST was completed in 2016 in areas of international exchange of fellows and scholars, and international Grand Rounds.

Apart from Individual societies, multiple MOUs were signed with individual academic centers that further the mission of the Society. These include MOUs with : University of Miami for international grand rounds, University of Seattle to develop an online QI platform, VCU to develop PTS registry, University of Azuay and the Ecuadorian National Network for Research and Education (CEDIA) for the development of an electronic platform for Essential Trauma Care Guidelines (EsTC) for trauma center site evaluation and verification in the Latin Region : tactful steps in the development of tools for trauma system development in the Latin Region. The EsTC platform was field tested in 2015 in Bolivia for a site evaluation of two large urban hospitals for verification of their resources and capabilities to care for the injured. The impact and development of these basic tools can, with minor adjustments, be applicable in other LMIC: an MOU with the Sri Venkateswara Medical Institute of Tirupathi in Andhra Pradesh, South India is just signed to implement trauma care and trauma education in that State.

Injury and Violence Prevention

Essential to the new direction of PTS to address systems of trauma care, injury prevention became an integral component of the society's mission. Initial sporadic lectures in the PTS congresses prior to 2010 have evolved to the development of a PTS injury and violence prevention committee in 2012 and an injury and Violence Travel Scholarship in 2013. Most notably a dedicated injury prevention research competition was launched in 2016, highlighting 20 podium presentations from the United States, Brazil, Argentina, Venezuela, Ecuador, and Colombia. In 2014, past president Gustavo Fraga inspired PTS in joining the International Yellow May movement, initiated in Brazil, to promote global awareness of Road Traffic Injuries and the importance of its prevention. Additionally, in 2015, an MOU was established with the US-based National Network of Hospital Based Violence Intervention Programs to promote international initiatives and collaborative program development. Finally the presidential address by M. Aboutanos in 2016 called to action for PTS to develop tools for hospital community-based injury and violence prevention that included (1) essential guidelines for injury prevention program development, (2) regional injury prevention data base integrated with PTS registry, (3) Guides for hospital based intervention research and grants, and (4) integrated platform for site evaluations.

In summary, PTS has entered its fourth decade with many accomplishments, having survived considerable challenges. It exemplifies the anatomy of a successful society, created for a unified reason: to do things of value better together. The PTS leadership appreciates this distinguishing characteristic. Like other successful associations, PTS is led by policy and strategy and not by the personality of the moment.¹⁵ It exhibits a coherency in the pursuit of what really matters, its stated mission. The Society's Presidents have consistently given their members message of unity among diversity: "see the value of the membership,

the importance of attending our annual meeting, and the opportunity to get involved in the business of the society" (R. Coimbra, 2010); ".....organize Trauma Societies in the American countries without one and promulgate existing trauma courses, to integrate actions and exchange experiences between PTS and regional Trauma Societies without losing our identity" (R. Poggetti, 2011). Aboutanos, immediate past President of PTS, defined the next frontier : "Equally, we cannot talk about systems, if our society is not involved in creating and advancing the very tools that create the system including data registries and management as well as prehospital and hospital quality improvement initiatives..."¹⁶

PTS has come a long way in cohort with its family societies: a melting pot of different races, cultures and nationalities with a shared dream and mission. Undoubtedly, it has improved patient care by interchange of ideas and expertise, expanding the scope of practice beyond injury to critical illness. Through educational courses, international fellowships and observerships, it engaged its youth. It stimulated interest in our specialty and kindled flames of curiosity and leadership in them. It showcased the vast South American trauma experience, creating new paradigms applicable to these countries. It also initiated injury prevention strategies and is on the verge of addressing system issues.

It is crucial that PTS looks ahead to the future and the challenges that inevitably lurk round the corner. Uncertainty, change, and risk are a given. Dealing with complexity involves active receptivity, clarity, openness and consensus. Where should the PTS be in a decade or so? What work needs be done, who should be doing what? Is what is being done working? There are pragmatic questions that the new leadership and the Society need to face and answer strategically: What is PTS? Is it a collection of different local societies? Or is it an integrated family where the societies are willing to lose their identity for the greater prize? Is it truly "panamerican"? Is there a need to "cut the chord," as some have suggested?

In closing, we humbly propose that it is imperative for PTS to appreciate that, in this increasingly complex system, order flows from interactions, not from central control. It should continue to emphasize small positive actions from the membership to benefit from these interactions and adaptations. Playing on the global stage, sharing problems, seeking collaboration, and creating partnerships is, undoubtedly, the apposite strategy.

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DISCLOSURE

The authors have nothing to disclose.

REFERENCES

1. Marttos AC, Kuchkarian FM, Abreu-Reis P, Pereira BM, Collet-Silva FS, Fraga GP. Enhancing trauma education worldwide through telemedicine. *World J Emerg Surg.* 2012;7(Suppl 1):S4.
2. Marttos AC, Kuchkarian FM, Rojas DF, Fraga GP, Collet-Silva FS, Costa CA, Garcia GD, Ginzburg E, Schulman CI, Namias N. Global connections:

- telemedicine as a tool to extend trauma education. *Panam J Trauma Crit Care Emerg Surg.* 2013;2(1):62–66.
3. Peck GL, Ferrada P, Joseph H, Ferrada R, Christopher D, Ordonez C, Aboutanos M, Gracias V. Can we augment the US Trauma Fellow's Operative Training? The PTS fellowship: a US surgical critical care fellow's experience in Colombia. *Panam J Trauma Crit Care Emerg Surg.* 2014;3(1):1–7.
 4. Ferrada P, Ivatury RR, Spain DA, Davis KA, Aboutanos M, Fildes JJ, Scalea TM. International rotations: a valuable source to supplement operative experience for acute-care surgery, trauma, and surgical critical care fellows. *J Trauma Acute Care Surg.* 2017;82(1):51–57.
 5. Knuth T. Letter to the Editor. *J Trauma.* 1993;34(6):914.
 6. Ferrada P, Ferrada R, Aboutanos M, Ivatury RR. International surgical rotation: a prodigious personal and professional maturation. *Am Surg.* 2015; 81(5):E230–E231.
 7. Ivatury R. Panamerican Trauma Society Travelling Scholarship: a cultural, clinical and surgical exchange. *Panam J Trauma Crit Care Emerg Surg.* 2014;3(1):v.
 8. Simões RL, Bermudes FA, Andrade HS, Barcelos FM, Rossoni BP, Miguel GP, Fagundes CA, Fraga GP. Trauma leagues: an alternative way to teach trauma surgery to medical students. *Rev Col Bras Cir.* 2014;41(4):297–302.
 9. Boeck MA, Blair KJ, Foianini E, Perry HB, Mata LV, Aboutanos MB, Haider AH, Swaroop M. Implementation of a Hospital-Based Trauma Registry in Santa Cruz de la Sierra, Bolivia: methodology, preliminary results, and lessons learned. *Panam J Trauma Crit Care Emerg Surg.* 2015;5(2):101–112.
 10. Uribe A, Roriguez CS, Ordonez C, Morales M, Ivatury R, Aboutanos M. Reporte del Registro de Trauma de la Sociedad Panamericana de Trauma. Un año de experiencia en dos hospitales de la ciudad de Cali. *Panam J Trauma Crit Care Emerg Surg.* 2015;4(3):109–123.
 11. Ordonez CA, Rubiano J, Badiel M, Pino LF, Minan-Arana FD, Tejada JW, Morales M, Puyana JC, Mata L, Aboutanos M, et al. Epidemiologia Del Trauma en Dos Hospitales de Primer Nivel de Atencion Del Suroccidente de Colombia. Reporte Preliminar Del Registro Internacional deTrauma de la Sociedad Panamericana de Trauma. *Panam J Trauma Crit Care Emerg Surg.* 2014;3(1):11–15.
 12. Calle-Toro JS, Ordonez C, Sanchez AI, Sanjuan J, Badiel M, Pino L, Ivatury RR, Aboutanos M. Epidemiologia de Lesiones Relacionadas con Colisiones de Vehiculos Motorizados en dos Centros de Referencia del Suroccidente Colombiano. Reporte del Registro Internacional de Trauma de la Sociedad P. *Panam J Trauma Crit Care Emerg Surg.* 2014;3(1):16–22.
 13. Rodriguez CS, Uribe A, Ordonez C, Morales M, Ivatury R, Aboutanos M. Reporte de la Tendencia del : Trauma Pediátrico en dos Hospitales de Cali en el 2012. *Panam J Trauma Crit Care Emerg Surg.* 2015;4(3): 124–135.
 14. Ordoñez CA, Morales M, Rojas-Mirquez JC, Bonilla-Escobar FJ, Badiel M, Miñán Arana F, González A, Pino LF, Uribe-Gómez A, Herrera MA, et al. Trauma Registry of the Pan-American Trauma Society: one year of experience in two hospitals in southwest Colombia. *Colomb Med (Cali).* 2016; 47(3):148–154.
 15. Tecker GH. Sustaining Association Success That Matters. American Society of Association Executives website. Available at: https://www.asacenter.org/resources/articles/an_magazine/2011/december/sustaining-association-success-that-matters. Accessed November 11, 2015.
 16. Aboutanos M. President's message. Available at: <http://www.panamtrauma.org/president-message>. Accessed December 31, 2016.