History of Urology in Haiti (Pierre Boncy, MD)

Urology in Haiti came to be recognized as a specialty in Haiti some 50 years ago. As everywhere else, it was originally performed by general surgeons who eventually limited their practice to the uro-genital tract. Christian Valme, MD who practiced in the 1960s is considered the true pioneer in Urology at the State University Hospital of Haiti. We also have to recognize the late Dr. Constant Pierre-Louis who organized the Service of Urology at the same hospital. Around the same period, Dr. Constant Andre practiced urology in the city of Cap-Haitien after a short training period with Dr. Constant Pierre-Louis in Port-au-Prince. He performed circumcisions, hydrocelectomies, cystostomies and penile amputations. He became the medical director at Hopital Justinien in 1957 and retired in 1969. The 1970-1980 decade is considered the golden era of Haitian urology as a group of young urologists, most of them trained in the USA at the Homer J. Phillips Medical center in Saint-Louis, MO returned home to practice their skills. They included Decatrel Mirville, MD, Roger Valme, Pierre Nazon, MD, Anthony Camille MD, Raymond Remy, MD and Dr. Benjamin. Most of them have since died or retired. The baton was passed to the third generation of young urologists in the 1980s, amidst serious socio-political upheaval and serious difficulties including an obsolete and inadequate equipment. Between 1980 and 2000, this group was made of Pierre Boncy, MD, Dr. Barthelemy, Bernard Brutus, MD, Pierre-Alix Nazon, MD and Jacques Gracia Medilien, MD. This brings us to contemporary times and the current staff at the State University Hospital that includes in addition to the previously mentioned group, Georges-Eric Brisson, MD, Claude Paultre, MD, Roger Valme, MD, Miletot Clervil and G. Alexis, MD. Every single member of the team has completed a residency training in Urology at the State University Hospital and is thus certified by the Ministry of Health. In addition, they have acquired additional training either in the USA, in France or in the French Antilles. Most of these urologists practice in the “Republic of Port-au-Prince” either in the public setting at the State University hospital or in the private sector, between the Hopital du Canape-Vert, l’Asile Français, the Hopital Saint-Francois de Sales, the Clinique Roger-Emmanuel and the Baptist Mission of Fermethe.

The evolution of Haitian Urology is mirrored by the evolution of prostatectomy that went through the stages of

- Trans-Vesical Adenomectomy with supra-pubic Pezzer Catheter
- Trans-Vesical Adenomectomy with control of bleeding
- Trans-Vesical Adenomectomy with Foley catheter
- Trans-Vesical Adenomectomy with blood transfusion in less than 50 % of the cases
- Finally, Trans-Urethral Resection of Prostate

Progress in the field of Urology in Haiti will require not only an equipment upgrade, but also strong leadership and the unification of all involved in the practice of urology and in the training of the next generation in order to standardize the residency requirements and improve the skills of the urologists.

An Inventory of Human Resources in Urology in Haiti (Claude Paultre, MD)

The first Medical School in Haiti was established in 1820. Since then, it has become incorporated in the State University of Haiti as the Faculte de Medecine et de Pharmacie. The medical degree is obtained
after a six-year cycle that follows the satisfactory completion of the secondary school curriculum. That six-year cycle includes two years of Basic Sciences, three years of Clinical Sciences and one year of rotating internship.

Subsequently, three additional private medical schools were added: University of Quisqueya in 1988, University Lumiere in 1993 and University of Notre-Dame in 1995, which is a seven-year program. Thus, there are currently four recognized medical schools. More schools are in the process of seeking recognition.

Within those medical schools, Urology courses are provided to the Fifth-Year students by five professors: Dr. R. Valmé and Dr. M. Clervil at the State University, Dr. R. Valmé and Dr. J. M. Aubourg at Notre-Dame, Dr. P. Boncy at Quisqueya and Dr. C. Paultre at Lumière. The medical students receive their first clinical exposure to Urology in their fifth year of education under the direction of four Clinical Instructors: Dr P-A. Nazon and Dr G. Alexis at the State University, Dr. J. M. Aubourg at Notre-Dame and Dr. J. Ganthier at Lumière. The second clinical experience in Urology is provided as a one-month rotation in Urology during the final year of rotating Internship, which takes place at the State University Hospital (Hôpital General in Port-au-Prince) for the State University Students, at the Hôpital Universitaire Justinien in Cap-Haitien for the students from Notre Dame and Quisqueya and at Hôpital Immaculée Conception in Les Cayes for the students from Lumière.

At the Post-Graduate level, the residents receive their specialty training in Urology at the State University Hospital in Port-au-Prince and at Hopital Universitaire Justinien in Cap-Haitien. In Port-au-prince, the Faculty includes: Dr. P. Boncy, Head of Department, Dr. G. E. Brisson, Assistant Head, Dr. C. Paultre, Program Director and a staff of seven: Dr. B. Brutus, Dr. D. Barthelemy, Dr. J. G. Médilien, Dr. G. Alexis, Dr. P-A. Nazon, Dr. M. Clervil and Dr. R. Valmé. In 2013, the four-year program counts 12 residents: 3 at the third year level, six at the second year level and 3 at the first year level. There are currently no fourth year residents since there was no graduation in 2010, because of the January 12, 2010 Earthquake.

The Service of Urology at the Hôpital universitaire Justinien of Cap-Haitien is directed by Dr. Jean Geto Dubé, who is also the chief Administrator of the Institution, aided by his lone staff member Dr. Jory Désir. Five residents are now in training, two at the second year level and three first year residents.

Through various training opportunities offered in Europe and in North America, some of the staff members have acquired a special expertise in specific areas. In Endourology, Dr. Pierre-Alix Nazon is the most versed in Urethrocytoscopy, Internal Urethrotomy, TURPs, TURBTs, Resection of posterior urethral valves, ureteroscopy and shock wave lithotripsy, while Dr. Clervil has special skills in female urology and urologic oncology as he is the most facile with Colporrhaphy and colpopexy, as well as Radical Prostatectomies and Cystectomies. Finally, Dr. Jacques Jeudy has been pioneering a renal transplant program, which is still in its infancy.

Besides the two training centers in Port-au-Prince and Cap-Haitien, Urologic procedures are also performed in Les Cayes, Petit-Goave, St-Marc and Jacmel.

In conclusion, over the past 20 years, 24 physicians have been trained in Urology. Currently, there are a total of 26 urologists in Haiti: 20 in Port-au-Prince and 6 for the rest of the country, which represents a ratio of 1: > 300,000 population. This number is likely to grow soon thanks to the two accredited sites of residency.

UROLOGIC SURGERY IN A PRIVATE SETTING IN PORT-AU-PRINCE – Pierre-Alix Nazon, MD
My assignment was to present a list of the most common urologic pathologies encountered in Haiti. Such data has not been compiled at the national level. In lieu of national statistics, I thought that a survey of the procedures performed over a two-year period at a single institution would give an idea, albeit a biased one, of the urologic conditions seen in Haiti. This presentation is based on a review of the surgical interventions carried out from January 2010 to January 2013 at the Clinique Roger Emmanuel, which is a small private ambulatory center located on Avenue John Brown in Port-au-Prince and dedicated to Urologic Procedures. It consists of one Operating room, three patient rooms and one lithotripsy suite. Three hundred thirty urologic procedures were recorded over this period and can be enumerated by order of frequency.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>TURP</td>
<td>133</td>
</tr>
<tr>
<td>Bilateral orchietomy</td>
<td>10</td>
</tr>
<tr>
<td>Ureteroscopy</td>
<td>36</td>
</tr>
<tr>
<td>Surgery for Bladder stones</td>
<td>9</td>
</tr>
<tr>
<td>Circumcision</td>
<td>32</td>
</tr>
<tr>
<td>Cryptorchidy correction</td>
<td>8</td>
</tr>
<tr>
<td>Varicocelectomy</td>
<td>31</td>
</tr>
<tr>
<td>Prostatectomy</td>
<td>7</td>
</tr>
<tr>
<td>Internal Optic Urethrotomy</td>
<td>24</td>
</tr>
<tr>
<td>Posterior Urethral valve ablation</td>
<td>4</td>
</tr>
<tr>
<td>Hydrocelectomy</td>
<td>22</td>
</tr>
<tr>
<td>Vasectomy</td>
<td>2</td>
</tr>
<tr>
<td>Surgery for Kidney Stones</td>
<td>10</td>
</tr>
<tr>
<td>Radical Prostatectomy</td>
<td>1</td>
</tr>
</tbody>
</table>

They can also be listed by anatomic site as follows: 150 prostate operations (or 45.45%), 63 scrotal procedures (19.09%), 55 interventions for stone disease (16.66%), 32 circumcisions (9.69%), 24 urethral operations (7.27%) and two other procedures (0.60%).

Breaking each category down, we find that 113 prostatic procedures were done for benign prostatic hypertrophy (106-TURP and 7 open trans-vesical) and 37 for adenocarcinoma (27 TURP+Orchiectomy, 10 orchietomies and 1 radical prostatectomy).

Sixty-three cases (19.09%) were classified as scrotal procedures and included 31 varicocelectomies, 22 hydrocelectomies, eight undescended testes and two vasectomies. Fifty-five interventions (16.66%) were carried out for stone diseases: 36 for ureteral stones extracted by semi-rigid ureteroscopy with or without intra-corporeal pneumatic lithotripsy, 10 open pyelo or nephro-lithotomies and nine for open or endoscopic removal of bladder stones. Under the heading of foreskin procedures (9.69%), we listed 32 circumcisions – 6 of them for children less than four years of age. In the grouping of Urethral Procedures, we counted 24 internal optic urethrotomy and four posterior urethral valve fulgurations, for a total of 28 procedures or 7.7%. Finally, two additional urologic procedures were classified as others, including one unsuccessful repair of a vesico-vaginal fistula and a caverno-spongial shunt for priapism in a patient diagnosed with sickle cell anemia.

Conclusions:
Benign Prostatic Hypertrophy and Prostatic carcinoma remain the most common cases seen in our practice. Bladder outlet obstruction represents an enormous burden for the male population since they spend often months, even years with indwelling bladder catheters. Most patients in our series were treated with Trans Urethral Resections, which is not widely practiced in Haiti. Workshops and additional training in this area would be beneficial for most of Haitian Urologists. As to the prostatic carcinomas, they were most often diagnosed in advanced stages, only one patient qualifying for a radical prostatectomy. The only option for the majority of the
cases was hormonal therapy, which consisted in a surgical castration. Fortunately, it would appear that the high grade prostatic adenocarcinoma reported in the relatively young males in the African American population and other Caribbean countries is not seen as frequently in Haiti.

It is curious that in a country known for its overpopulation, we treated more men for infertility with 24 varicocelectomies against only 2 vasectomies. This should be food for thought for the Ministry of Health and Population.

As far as dealing with stone disease, we have become quite facile with the semi-rigid cystoscope but we have no experience with the flexible device. The high cost of the Laser equipment and its fragility represent major obstacles to the use of that technology in Haiti, but we hope soon to be able to perform percutaneous nephrolithotomies, since we already have the C-arm fluoroscopy capability.

Our cases of Urethral Stenosis were treated by Optical Urethrotomy and our results were similar to those reported in the literature. However, recent workshops in Reconstructive urologic surgery have changed dramatically the outcome for our patients. Urethroplasty with or without graft as the best approach for difficult strictures constitutes a major improvement in urologic practice in Haiti.

In the field of Pediatric urology, circumcisions and testicular descent+fixation are regularly done. We do not have a pediatric cystoscopy set, so we use the ureteroscope for posterior urethral valve fulgurations (4 patients).

Finally, as far as female Urology, most of the patients presented with renal or ureteral stones. We also had one case of failed Vesico-Vaginal Fistula repair, which has subsequently successfully repaired since then by Dr. Angelo Gousse during one of his recent visits to our institution.

This survey has certainly many limitations, but our purpose was to present the status of Haitian Urology in order to help our group to implement projects, find strategies and means to reach what should be the goal of this collaboration between Haitian and American Urologists, which is to: “Achieve an appreciable standard of care for the Haitian Urologic patients.”

**Haitian Residency training in Urology – Obstacles and Limitations by Jory Desir, MD and Youry Dreux.**

Fifty years ago, a residency program in Urology was initiated at the General Hospital in Port-au-Prince which since has become the State University of Haiti Hospital (HUEH). The Urology Residency program started in Cap-Haitien at the Justinien University Hospital (HUJ) in 2006. These two institutions constitute the only two training venues in Urology in Haiti and to date, they have graduated 26 urologists over the past 20 years: 24 in Port-au-Prince and 2 in Cap-Haitien. The facility at the HUEH includes:

- 2 consultations rooms for outpatient visits
- 9 inpatient beds: 4 for emergency cases and 5 for elective ones
- 1 room for archives
- 1 room for minor surgery
- 1 treatment room for Foley catheter insertions and replacements
The Urology Service at HUJ consists of

- 1 outpatient consultation room
- 11 inpatient beds: 6 for elective and emergency cases, 1 for isolation and 4 for private patients
- 1 room for minor surgery, which is also used for endoscopic exploration
- 1 treatment room for Foley catheter insertions and replacements and nursing care
- Two offices: one for the Urology Chief and one for the head nurse. – There is no budget for a secretary in Urology
- 1 room for Medical Records
- No formal conference room

At the HUEH, the staff and personnel are made of 11 urologists (10 active), 12 residents (three 3rd year, six 2nd year and three First year residents, 10 Nurses, seven interns, five nursing students and eight housekeepers. In comparison, the Service of Urology at HUJ counts two attendings, three residents (two second-year and one first year residents), eight nurses (1 head nurse + 7 staff nurses), 12 Interns, 5 Nursing Students and 3 housekeepers.

The residents are recruited from all the four medical schools but predominantly from Notre Dame and Quisqueya, through a national contest. The residency curriculum stretches over a four-year period and consists of a theoretical didactic component, a clinical component and an operative component. However, the specific requirements, such as the goals and objectives of that Curriculum remain vague and often ignored. Indeed, the standards are ill defined. There is no system of accreditation of the residency programs and there is no assessment of the level of technical expertise achieved by the resident at the end of his or her training. Some residents complete their training with limited exposure to certain procedures or none whatsoever. Even if there was a mandatory quota of procedures, how can it be enforced? Additional obstacles to the proper training of a urology resident result from the physical deficiencies of the hospital facility and the inadequate supervision of these residents, due in part to the salary structure and intrinsic failures in the residency structure. Indeed, these facilities lack of proper equipment. The instruments are often obsolete and when broken, it is impossible to have them serviced or replaced. One senses that both the residents and the attending staff show a lack of motivation or work ethics. The salary structure is partly responsible, since they are traditionally low (< US $200/month for a resident and <US $650 for the attending staff) and they are paid irregularly. Therefore, to meet their daily expenses, the attending staff must earn additional income from private practice, which prevents them from being physically present at the hospitals to supervise the residents or more actively participate in their formation by providing lectures and other didactic activities. There is a lack of an up-to-date library with appropriate audio-visual educational material.

Although there is an abundance of urologic pathology in the population, despite the fact that medical care is supposed to be freely available, a large percentage of the population cannot afford a consultation, the tests necessary or the costs of operations and hospitalization. Therefore, the number of cases available for the training of the residents is limited. The number
of inpatient beds is limited. Adequate imaging studies are lacking most of the times. The equipment in the emergency service or in the operating room is limited and does not include what would be considered basic in a more advanced system, such as endoscopy, laparoscopy, laser technology. For example, the emergency room lack often the following tools and materials: catheters (coude, rigid...), an ultrasound machine, a Bladder scan, trocar for supra-pubic cystostomy, Filiforms and followers, Cystoscope set, sterile Gauze and gloves or even an adequate Urologic Table. The operating suite at either institution only has two working operating rooms for six surgical services. The Urology Service has access to the operating rooms only two days a week. They lack of proper urologic tables, working electro-cautery, suction machines, endoscopic towers with light source, overhead lights etc... There is no possibility for frozen sections. Even regular pathology is very costly to the patients and there is a long waiting period for the pathology results even when the patient can afford to have the test done.

Although several attending have had short periods of training abroad, can they really be considered specialists? Can they offer sub-speciality training to the finishing residents? Are there any programs of continuing medical education to keep the attending physicians up-to-date? There is no exchange between the HUEH and the HUJ programs. There are no possibilities for clinical or laboratory research and no urologic publications in Haiti. Short periods of training in France or the French Antilles are rare and unpredictable.

To start to remedy to all these problems, we humbly submit the following recommendations:
1. First we need a revision of the curriculum with goals and objectives well-defined taking into account the evolution of training in urology in the world and adapted to the Haitian reality
2. Continuing Medical education and opportunities to increase their skills and level of expertise and define standards of care for all staff involved in the training of urology residents.
3. Exchange between HUEH and JUH to synchronize the training of urology residents: clinical rotations, videoconferencing, common research projects, written and oral tests at the end of the residency for both sites in lieu of board certification.
4. Establish an academic environment for proper education in Urology – Opportunities to publish case reports, case series, review articles or present at local, national or international urologic conferences
5. Encourage the faculty members to obtain sub-specialty training
6. Offer the residents the opportunities to rotate in these different sub-specialties prior to their graduation or to obtain themselves sub-specialty qualification after graduation.

Urology is an essential part of a medical school Curriculum and it contributes to the multidisciplinary culture, by playing an active role in the cross training of all the residents.

**Urology Residency Training – The Future of Urologic care in Haiti – Angelo Gousse, MD**

The Language for Minimum Program Requirements was Approved by the ACGME, September 28, 1999 Educational Program. It states that the residency program must require its residents to obtain competencies in the 6 areas to the level expected of a new practitioner. Toward this end, programs must define the specific knowledge, skills, and attitudes required and provide educational experiences as needed in order for their residents to demonstrate:
• **Patient Care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health
• **Medical Knowledge** about established and evolving biomedical, clinical, and cognate (e.g. epidemiological and social-behavioral) sciences and the application of this knowledge to patient care
• **Practice-Based Learning and Improvement** that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care
• **Interpersonal and Communication Skills** that result in effective information exchange and teaming with patients, their families, and other health professionals
• **Professionalism**, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population
• **Systems-Based Practice**, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value

The residency program must demonstrate that it has an effective plan for assessing resident performance throughout the program and for utilizing assessment results to improve resident performance. This plan should include:

  * Use of dependable measures to assess residents' competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice
  * Mechanisms for providing regular and timely performance feedback to residents
  * A process involving use of assessment results to achieve progressive improvements in residents' competence and performance.

The residency program should use resident performance and outcome assessment results in their evaluation of the educational effectiveness of the residency program. It should have in place a process for using resident and performance assessment results together with other program evaluation results to improve the residency program.

Overall goals and objectives must be defined for the entire residency program and for each post-graduate level. The overall goals should focus on Competency based evaluations – assessing surgical skill and judgment.

The first year resident should learn: Endoscopic procedures, Minor open urologic procedures-penile & scrotal surgery and surgical techniques for complex major cases through observation in the OR.

The second year resident will gain research skills, understand and function as the 'consult' resident, attempt to master the more complex surgical procedures, improve endoscopic and resection skills (i.e., TURP, TURBT) and master transrectal ultrasound biopsy technique as well as reading Urodynamic studies.

The Third-Year resident will focus on Pediatric Urologic procedures, acquire Enhanced knowledge of renal physiology and vascular surgery skills and manage the consult service. In addition, he will act as primary surgeon on many of the major cases and as a Teaching Assistant to junior residents on the minor open and endoscopic cases.
The Fourth-Year Resident will master organization and management of the patient’s surgical treatment, inpatient and outpatient care and organization and operation of an efficient service. The didactic aspect of the residency training should be inclusive of the following activities:

- Case Discussion/IVP (Uro-radiology)
- Pathology/Tumor Board
- Quality Assurance/Morbidity and Mortality
- Multidisciplinary Oncology Conference
- Didactics/"Campbell’s” Club
- Evidence-Based Medicine – Journal Club
- Pediatric Urology – Nephrology
- Research
- Urodynamics
- Visiting Professorships
- Tele-Medicine Conferences
- Web Based Education

The purpose of these didactic activities is to secure a core knowledge that will include:

- BPH, LTOS
- Cancer : Prostate, Bladder, Penile, Renal
- Urinary Incontinence –Male and Female
- Urolithiasis
- Pediatric Urologic Disorders
- Erectile Dysfunction, Male Infertility
- GU Infections
- Trauma and Urethral Stricture Disease

As part of his administrative duties, the Chief Resident shall organize the Call schedules, manage the Duty hours, be responsible for Disciplinary action, provide counseling when needed and participate in the appraisal of the performance of Junior residents and faculty members.

To meet their research requirements, the Residents are encouraged to be involved in clinical/chart review research throughout their residency. They are also encouraged to present their clinical research findings at scheduled local, national and international conferences.

There is an urgent need for Urology Certification in Haiti. Such process should implicate the Medical Schools, the Department of Education, the Rector of the University and the Haitian Society of Urology. There is also a need for Verification of the credentials and Expertise of Urology Volunteers working in Haiti. Both these certifications would be best served by a Centralized Process and with support and input from American Urologic Association, the Société Internationale d’Urologie, the IVUmed, Individual Urologists and other Interested Organizations. Meanwhile, there is a great need for

- Basic Supplies : Catheters, stents, wires, sutures, GU trays
- Endoscopic Instruments: rigid, flexible scopes
- Ultrasound Equipment
- Urodynamic Equipments
Obstacles to the Practice of Urology in Haiti – An Analysis of Needs – Jean Geto Dube, MD, Msc

This first Joint Haitian American Urology Conference was triggered by Dr. Ziegelbaum’s initial email followed by the immediate chain reaction of all the American urologists, who in the past have volunteered in Haiti. I am speaking of Drs. Lanctin, DeVries, Angelo Gousse, Dale, Peterson, Sam Broaddus, etc… Under the leadership of Dr. Louis-Joseph Auguste and his partners of the AMHE, the discussion continued and eventually was channeled to result in this first joint meeting of these Haitian and American Associations. I thank all of you for your enthusiasm.

I will discuss today the obstacles to the practice of Urology in Haiti, while presenting an analysis of the needs of Haitian Urologists. The ultimate goal is the advancement of Haitian Urology, through this frank discussion between our Haitian and American colleagues about what needs to be done, particularly in the area of formation. We can approach this topic in two ways: either by discussing the needs in Cap-Haitien and separately the needs at the State University of Haiti Hospital in Port-au-Prince, or by looking at the problem more broadly from a national standpoint. We elected to pursue the second approach, because Urology is not practiced only at the HUEH and HUJ, but also in private practice settings, in certain philanthropic centers where urology services are offered and finally in certain governmental medical centers where urologic care is provided daily or sporadically either by Haitian Urologists or volunteers from abroad, such as Bonne Fin Hospital, Immaculate Conception Hospital, Bienfaisance Hospital of Pignon, etc...

A need is the difference between what one has and what one wishes for and the reasons why these needs cannot be fulfilled represent the obstacles. With this in mind, we asked ourselves three questions:
- What is the current situation?
- What should be the current situation and what we can do to achieve it?
- Why can’t we achieve it yet?

These questions were integrated in a survey, which was sent to all the urologists trained at either the HUEH or the HUJ. We insisted that all questions be answered. A hospital administrator as well as the medical director of a hospital was also asked why their hospitals do not buy certain urologic equipment. Certainly, our survey had several limitations. First, the number of individuals interviewed was small. Second, given the short period of time allotted for the study, we did not have the time to submit the compiled answers to the interviewees in order to verify if the conclusions truly corresponded to their opinions. These limitations however should not invalidate the results of our study that we intend to submit to the critical review of the urologists in attendance today and who for some practical reasons did not take part in the study. From today’s discussion will emerge additional information which will further our knowledge of the real needs in Haitian Urology. This meeting represents therefore an
important tool for data collection and a significant step in the assessment of our needs and the obstacles to the practice of Urology in Haiti.

**RESULTS: OBSTACLES** - As far as the types of surgical procedures performed, they consist predominantly of open, bread and butter cases, although we have seen a timid progress in the form of a few radical prostatectomies, two renal transplants, some urethral interventions and some endoscopic procedures, particularly in the private hospital settings. From a technical point of view, the urologist who wants to perform a given procedure, has to bring his own equipment, ranging from electrocautery to endoscopic instruments. Imaging studies such as a sonography or even as simple as an intra-venous pyelography are easily obtainable in the private institutions but extremely difficult to get in the public institutions. A CT scan is possible but beyond the reach of the clients of the public hospitals. It is difficult to obtain blood tests, such as free or bound PSA and it may take months to obtain the results of a biopsy. The medical director that we interviewed could not see the need to purchase sophisticated urologic equipment because they are very expensive and the OR cases are rare. It is therefore not clear that one will get a decent return on the investment. The government should absorb the cost of these instruments to make them available to the public. Most of the responders to the survey felt that there was a lack of a sense of responsibility regarding the equipment in the public setting. The maintenance system in the public institutions is inadequate or downright inexistent. Thus the half-life of the instruments in the private setting is much longer than in the public centers. There is also a problem of individualism, since the urologists will seldom invest together to purchase the very expensive items. The training of the residents remains a dilemma, since it is not standardized and we have not figure out to measure their competency before graduation. Some of them are lucky to receive additional formation abroad, but this is inconsistent and some graduate from our training programs have difficulty performing transurethral resection while elsewhere in the world, they are already in the era of laparoscopy and robotic surgery. In addition, the ancillary help may not be very dependable and some urologists worry about the quality of post-operative care that the nurses will provide to their patients in the private sector.

**Needs:** It is imperative to keep the basic instruments of urology available. However, at the same time, a sense of responsibility toward the equipment must be instilled in the users and a maintenance service must be established: Teach the physicians how to use them and the personnel how to care for them. Opportunities should be provided for the practicing urologists to update his or her knowledge and to participate in continuing medical education programs. We must also encourage the young physicians to acquire sub-specialty training, particularly those working at a university center.

**Why are we in that situation?** There is an overall lack of investments in the area. There is room for involvement by the private sectors, but the government should purchase and make the basic tools available. There is a lack of vision – We do not know where we are going or how to get there. Many urologists have lost all confidence – Why should we try? We are so far behind and we will never get there. There is also a lack of leadership. The Haitian Society of Urology is moribund. We are too individualistic and do not want to work together to make things better. There is no regulatory system for the specialty. The economy is in bad shape for most of the population. The population does not understand the value and the role of urology
as a specialty. Other health care professionals do not appreciate urology either. The practice of urology is limited to just a few centers across the country.

However, there seems to be a silver lining in the cloud. Thanks to individual effort and motivation, we are seeing more transurethral procedures, a couple of renal transplants and a few radical prostatectomies as well as a few urethral interventions. At the same time, we seem to discern a beginning of change in the attitude of the population, since men are now willing to be operated for varicoceles.

My recommendations would be to seize this opportunity to adopt a strategic plan for the growth of our specialty. Seize the opportunity to reinforce our structures and improve our armamentarium. Seize this opportunity to establish a system of continuing education for the practicing physicians as well as the residents in training, in partnership with our American Colleagues. We have to establish a better system to manage and maintain the equipment as well as a sense of personal responsibility among the users of this equipment. The Haitian Society of Urology should assume its role as a leader to unify all the urologists around common goals. Groups of Urologists should come together and seek third party financing for the acquisition of costly equipment.

My personal wish is that meetings such as this one continue in the future to keep us focused on the goal, which is to stir the Urology specialty forward for the welfare of the Haitian population in general.

**Konbit Sante – Samuel Broaddus, MD, FACS**

My name is Sam Broaddus, MD, a Staff urologist at the Maine Medical center of Portland since 1984 and I agree that this First Joint Haitian American Urology Conference has a historic significance. You will allow me to express my heartfelt thanks to our Haitian hosts for their collegial and collaborative spirit. This effort is both aspirational and inspirational for me. I have been working in Haiti as a volunteer since 1994, first at the Albert Schweitzer Hospital in Deschapelles and later on in Cap-Haitien at the Justinien University Hospital, under the auspices of Konbit Sante, also called Cap-Haitien Health Partnership. This latter organization was founded in Maine in 2000. From the onset, our Goal and mission was to develop a partnership with the Haitian Ministry of Health in order to build capacity of the public healthcare system in Northern Haiti with maximum local direction. We chose to designate our organization by these two Creole words: “Konbit” which is the Traditional Haitian method of working together to get the job done better and quicker and “Sante”, meaning Health. Konbit Sante is a legally recognized NGO, that employs 40 Haitians, including physicians. It also includes 120 clinical and public health volunteers and more than 20 infrastructure volunteers. Through a partnership between people with expertise and interest in the US and our Haitian colleagues, we seek to build long-term capacity. Our work has been centered at two public health institutions - Justinien University Hospital and Fort St. Michel Health Center. They are both staffed and managed by the Haitian Ministry of Health. Our role is that of a supporting partner. We work together with the administration and staff at these institutions to identify the prevailing needs and priorities, then seek the resources necessary to jointly implement appropriate
interventions. The staff we employ are embedded within these institutions and several are Ministry of Health employees as well as our own.

Our efforts have been focused on certain Clinical Initiatives, such as Women’s health, Children Health, Community Outreach and other forms of collaboration. In 2008, we conducted a baseline assessment of the Surgical Services at Justinien Hospital, in the form of a SWOT Gap analysis that looked at issues of Staffing, the physical structure and capacity of the Surgical ward and the Operating Rooms. We also looked at the Clinical Case Mix, Different Quality Initiatives, Opportunities for Surgical Education and Research, the provision and maintenance of Surgical Equipment and Materials, as well as other Surgical Support Services. Armed with these data, we undertook several Support programs for the infrastructures of the institutions, by rebuilding some of the hospital toilet facilities, by improving the Hospital electric grid and by supplying sturdy and high capacity electric washing machines in order to replace the archaic system of washing the laundry by hand. Through a cooperation with USAID, we are presently engaged in a project to expand and upgrade the Pediatric Pavilion at the Hospital. Our support to the Hospital has also included the regular collection and shipping of donated materials and equipment to the institution and support a salary line for a manager to organize and keep an inventory of the stocks in the depot of the hospital.

Our commitment to this program is for the long run and it embodies the concept of accompaniment. Personal long-term relationships not only matter, but they matter a lot. To accompany someone is to go somewhere with him or her, to break bread together, to be present on a journey with a beginning and an end. There is an element of mystery, of openness, in accompaniment: I will go with you and support you on your journey wherever it leads. I will keep you company and share your fate for a while. And by “a while,” I don’t mean a little while. Accompaniment is much more often about sticking with a task until it is deemed completed by the person or people being accompanied, rather than by the accompagnateur.

This first Joint Haitian American urology Conference is a groundbreaking event. To the extent that other surgeons in developing countries face the same challenges and obstacles that we have met and are still meeting, we are encouraged by the American College of Surgeons to publicize our attempt to bring Haitian and American urologists together and raise the bar of urology in Haiti.

**Project Haiti / IVUmed Collaboration in Haiti – Henri Lanctin, MD, FACS**

Since its inception in 1989, Project Haiti in collaboration with IVUmed has benefited from the generous contributions of more than 600 volunteers – medical and others from all walks of life. The project has contributed 10,000-20,000 lbs donated supplies annually. It has designed and built Hospital Bienfaisance expansions, completed missionary dormitory facility, constructed the international airport of Pignon, built and supported a primary school for 300 students, helped develop and fund the first “Mother’s Clubs”, helped Dr. Guy Theodore to establish Pignon Rotary Club (voted best in Caribbean and Dr. Guy is Haiti’s first Governor). We also developed solar/battery energy storage as well as a sewage system for the hospital. We have brought
surgeon professors to teach for the past 17 years. We have achieved alliances with industry and
donated two Endo-suites and the capability to perform satellite based telesurgery. We would
like here to acknowledge all the corporations that have aided us in this journey:

- Stryker Endoscopy and
  Communications
- Thelen Heating
- Sell Hardware
- Gary’s Painting
- Brainerd Glass
- Hoffman Electric
- Multiple Concept Interiors
- Fastenal
- Tool Crib of the North
- Cuyuna Regional Medical Center
- Larson Allen
- Berchtold Corporation
- Jordan Architects
- Riverwood Health Care Center
- Stor-Mor Shipping
- Nelson, Inc.
- Christian Coalition for Haiti
- US Surgical Corp
- Lake States Lumber
- Lundberg Plumbing
- Nor-son Construction
- General Electric
- Ethicon Endosurgery

One of the most remarkable joint endeavors of IVUmed and Project Haiti was the
Multidisciplinary Public-Private Partnership to Train Haitian Pelvic Surgeons in Vesicovaginal
Fistula Repair. From November 2011-2012, 3 week-only workshops were conducted at the
Hopital Bienfaisance in Pignon. It involved the public, private, non-governmental and
educational sectors. The course was taught by 2 US fellowship trained urologists and the
Attendees included Haitian gynecologists & urologists, as well as Haitian & US residents. 21
patients benefited from this program, which was successful in 81% of the cases, at the same
time that two gynecologists and a urologist were trained in the correction of Vesico-Vaginal
Fistulas.

Future directions of this cooperation will include the continuation of the Support for Hopital
Bienfaisance de Pignon, the continuation of VVF and Urethral Reconstruction Workshops,
Support for urologists in other areas, assistance with Haiti appropriate resident curriculum and
training, the development of an EMR system as proposed by Dr.Fran Schneck and the
UroHaiti.org web site as well as the support for participation in the SIU / AUA training courses
and Support for the training course attendees.

**Urology in Haiti : Current Observations and Future Hopes – Michael Ziegelbaum, MD**
The Goal of this First Joint Haitian American Urology Conference is to coordinate the efforts of
American Urologists interested in providing physicians education and direct patient care. This
interaction with our Haitian Colleagues will require a partnership with them, as well as their
guidance in order to fulfill their mandates. Industry involvement, governmental support as well
as additional partnerships will be crucial to the success of such endeavor and we seize this
opportunity to salute and express our gratitude to all the entities who have allowed this
conference to become a reality: AMHE, AUA, IVUmed, Haitian Society of Urology,
representatives of the industry such as Karl-Storz, Stryker, MedShare, Sonosite, Zeiss and
individual friends and colleagues.
The reasons for my personal involvement is this program stand from my long history of giving back to the less fortunate, my personal desire to expand my horizons and see the World, the Judaic principle of TIKKUM OLAM (repairing the World) and my personal friendship with Dr. Louis J Auguste. The general guidelines of my involvement in Haiti are the following:

- To cooperate with the local medical work force and its resources
- To support local health care with learning material, medications, supplies and equipment
- To provide our experience and work to elevate the level of care
- To empower the Haitian health care professional to practice better medicine and explore ways to provide sustainable improvements in their health care delivery

In other words, our goal is to teach our Haitian colleagues how to fish, rather than giving them the proverbial fish. In this act of altruism, let us not forget that we will find something for us as well. This program offers us the opportunity to ground oneself and to have a better sense of the world, at the same time that it will allow us to connect one with his/her true clinical abilities and judgment, despite the lack of technology. It will provide our residents with a valuable human experience as well as a sense of accomplishment and for all of us, Americans and Haitians, a bonding experience.

We will remember that Haiti was once the richest French colony with an economy based on slave exploitation. This untenable situation led to the slave revolution, which was crowned, with success in 1804, at the end of a long struggle. Since that moment, we have witnessed 200 years of hampered leadership, non-acceptance by the International community as an equal, economic predation by western governments and corporations. All these factors, coupled with recurrent and frequent natural disasters, have resulted in making that once so rich island into the poorest country in the western hemisphere. The loss of the country’s agricultural base mixed in with overpopulation, a trickle down economy, diversion of funds at the highest level, is a recipe for disaster. The impact of this situation is that 80% of the population lives below the poverty level, earning less than $200/year. Only 50% of the population have access to clean water; 60% of the population has no access to heath care and 20% have a difficult time accessing health care, since they have to walk over 5 kilometers to reach a health care facility. Health care expenditure amounts to about $ 83 per capita per year. Thus, it is not surprising that Life expectancy is merely 54 years. The Haitian Health Care system faces staffing issues, equipment issues, energy issues, issues with clean water, along with issues of patient’s comfort and safety.

An important part of the health care system is the Justinien University Hospital, a 250-bed institution erected in 1890, renovated in 1920 during the US Occupation of Haiti. However, since then, several renovations unfortunately have not kept pace with modern standards of care. Thus, it still has literally wide-open wards with archaic sanitary facilities. Justinien Hospital no longer provides food or laundry services and the infrastructure is for the least obsolete. At my last visit, the Operating Suite was comprised of two functioning Operating Rooms with inadequate lighting and cooling. The anesthesia machines often missed parts and the limited availability of blood, intravenous solutions and oxygen made it a risky undertaking, not to say an adventure, every time surgery was performed. The equipment is scarce and poorly
maintained. This situation is further complicated by a lack of, as well as mismanagement of, economic resources. There is no accountability and the hierarchy is undermined by the overarching dominance of the governmental bureaucracy. Salaries are paid irregularly, making it difficult to make demands of the employees. Information technology is in its infancy. Basic measures as simple as proper identification of the personnel with ID badges or a security system for the facility are not implemented. Yet, this Medical Center is the receiving hospital for the 200,000 population of Cap-Haitien, as well as all of the Northern Department, as well as the Haitian population of the northwestern areas of the Dominican Republic and the Islands of Bahamas, since the Haitian living illegally in these countries are denied access to any level of medical care. Justinien Hospital provide training for over 60 residents in the specialties of Surgery, Internal and Family Medicine, Urology, Orthopedics, Pediatrics, Obstetrics and Gynecology, Ophthalmology and Oto-Laryngology.

As far as the Urology specialty is concerned, in the US, it is rapidly moving rapidly towards laparoscopic and endoscopic approaches, while advanced imaging technologies and screening protocols allow earlier and earlier detection of diseases and better surveillance of patients after treatment for their malignancies. By contrast, in Haiti, the diseases are diagnosed late and most of urologic procedures are carried out in an open manner, without the benefit of pathology services.

This nascent effort for cooperation between all the societies involved in this first joint conference can play a large role in solving this untenable situation. Beyond the supply of material and other technological support, it will require a local will for improvement, to make organizational changes and a greater sense of honesty, accountability and responsibility toward the population. It will require that all foreign assistance organizations operating in Haiti look beyond their personal agendas or interests, reject the prospect of perpetual dependency and accept the concept of greater concertation of efforts, solely for the advancement of the country toward self-reliance. The solution to this situation will also require the cooperation of multiple sectors of health care, such as nursing, administration and social work, as well as the business and the industry sectors that can at last become interested in the upgrading and maintenance of a more modern armamentarium. Then, our role will be to work with the Ministries of Education and Health to design and implement a better curriculum for the training of the new generations of physicians and urologists and offer to the practicing urologists opportunities for continuing medical education and integration of new technologies. In the interim, a reliable broadband internet system will make available Tele-Pathology, Tele-Radiology and Tele-Conferencing, that can bridge the gap caused by deficiencies in these services.

It is our hope and expectation that this concerted effort will lead to the improvement of the urologic health of the general population of Haiti. It can also provide an enriching experience for our US urology residents, since with the disappearance of physical borders, the world has become more and more a global village. Working side by side with their Haitian colleagues, they can broaden their horizons and let themselves be challenged with different pathologies and forms of presentation. Finally, on a more selfish note, I hope that when I come for a
vacation in Port-Morgan, Moulin-sur-Mer or Labadie with my family, I would receive in Haiti the same excellent level of care that I would expect anywhere else.

**Development of an Integrated, Open Source Electronic Health Records – Francis Schneck, MD**

Out of the thousands of NGO operating in Haiti, at least 40 of them have focused on diverse aspects of health care. This has resulted in a lack of coordination of resources, with limited ability for information exchange between providers and organizations, duplication of efforts, limited consistent follow-up, lack of outcome and effectiveness analysis, limited integrated data for reporting requirements and limited transfer of health information from paper to electronic. In an attempt to solve these problems, we have sought primarily to create an integrated health care record encompassing medical, environmental, social, and cultural information and as a secondary goal, we wanted to create a low cost electronic solution for patient records, create a system designed specifically for geographical need that can evolve over time and increase collaboration between volunteer organizations. Presently, the Electronic Medical Record is a compilation of demographic data, vital signs, progress notes, radiologic images, laboratory values and developmental information. EMR is expected to evolve in the near future and to reflect the social, cultural and environmental context of the individual or the population. An integrated comprehensive electronic health record would provide an invaluable tool for all these organizations to coordinate their efforts. The characteristics of this system should be:

- Open source, i-e Low cost, allowing broad contribution by health providers and academic personnel and volunteers.
- Crowd sourcing: in other words, accepting design input from users, field experts, health providers and technical experts.
- Integrated: i-e able to communicate with other systems used by multiple organizations
- Inclusive: i-e a holistic system capable of evaluating the interactions between medical, environmental, social and cultural factors impacting outcomes
- Evolving: meaning that it be able to grow and change with geographical and temporal needs and that it be adaptable to each unique population.

Thus, input received from different hospital networks could be stored in each individual server and sent via satellite to the “cloud” as a backup. In turn, the information so accumulated could be released to involved hospitals and medical clinics, departments of health, Volunteer organizations and funding entities with reporting contingencies. A prototype for this device has been created as a small suitcase, almost like a laptop by the VECNA® company and is essentially a Portable Electronic Health Record and Network in a Box. It is ready to be piloted and IVUmed will bring it down on its next training visit to Haiti. All screened patients will be entered into the electronic health record system. The patient processing and system data elements will be evaluated for feasibility. Patients who receive surgery will have a more detailed information input into the health record. Staff/providers will be asked for input on current practices and feedback and they may be asked to join crowd-sourcing site to provide feedback online if interested. The suitcase system will return to IVUmed after the visit.

The pilot will include 5-10 sites and will include repeat visits to these sites. Logins will be given to appropriate individuals, such as Visiting Health Workers and Local Health Workers in order to access the Web-based system. The users will be identified by Names, Birthdates and Biometrics (e.g. fingerprints). The system is very user friendly and information can be entered
by clicking on consecutive menus or by using a touch-sensitive keyboard. It will also suggest options for treatment based on best Evidence-based medicine recommendations. It will also allow compilation of data for studying different pathology entities or population cohorts as well as preparation of appropriate reports. Following the satisfactory completion of the pilot project and the site study, the timeline for the development of the project will move to a regional evaluation before finally a mass deployment.

IVUmed will keep all interested individuals abreast of the different phases of this very promising project.

**Online Coordination of Urology Efforts in Haiti – Josh Wood**

The Mission of IVU is: To Make quality urological care available to people worldwide and our Motto is: Teach One, Reach Many. Although it was officially founded in 1995, IVUmed started operating in 1992. It represents the Leading independent NGO dedicated to urological care and teaching. Throughout the years, it has experimented with diverse settings and programs and has served communities in Africa, Asia, Central America, Caribbean, South America and the US.

The programs of IVUmed had included:

- Pediatric Urology: 21 years (3 w/Interplast)
- General Urology: 14 years
- Resident Scholars: 14 years
- Female Urology: 9 years
- Reconstructive Urology and LF: 9 years
- Domestic US Program: 5 years
- IVUmed Fellowships (2 fellows)
- IVUmed Senior Fellows (6 fellows)

With the support of the American Urological Association and the Societe Internationale d’Urologie, IVU has been involved in multiple programs that have taken place in Port-au-Prince, Leogane, Deschapelles, Pignon and Cap-Haitien, through partnerships with the Université de Notre Dame committed to the elimination of filariasis in Haiti by the year 2020 and Project Haiti devoted to improving the quality of life of the people of Haiti, by providing medical education to Haiti’s own health care providers.

To coordinate all these efforts, IVUmed has created a Web site entitled: [www.UroHaiti.org](http://www.UroHaiti.org). In addition, this web site will allow to Communicate needs/wants of urologists in Haiti, Educate potential participants, Share and discuss best practices, Post curriculum and other materials and Facilitate communication. Individuals or organizations interested in sponsoring a workshop or other educational program can post the date, the site, the focus of the event and possibly request the participation of volunteers in whatever capacity. Moreover, it can be a valuable support to the educational programs, by Listing needs of training materials, Posting curriculum, educational materials and links to useful resources online, Coordinating a wide array of resources and Informing others of current training activities.

The web site will provide a general orientation to potential participants in the efforts by offering an Overview of urology in Haiti, Matching potential volunteers to participating organizations, informing the potential volunteers/visiting professors as to “What to expect” and finally allow them to Join a collaborative effort.
UroHaiti.org will allow to share best practices by Posting activities, goals, results, ask questions through a Blog or a discussion forum, to plan strategies and seek partners to address challenges.

Vice versa, the web site will allow the local entities to communicate their needs in any specific area of Education and training, Equipment and supplies, any Site-specific input, Input from nursing, anesthesia, etc. and Recruit support from AUA, industry, etc.
While we share common goals and commitment, we can harness our unique strengths, share our unique perspectives, our expertise based on various degrees of experience and take advantage of our personal partnerships and contacts.

Finally the web site can open to door to multiple innovations such as Telehealth, Digital education modules, Increased opportunity for acquiring skills, Electronic health records and Outcomes measures. It can also open the door to regional partnerships with for example, the Caribbean Urological Association (CURA), Pan-African Urological Surgeon’s Association (PAUSA) and the Société Internationale d’Urologie (SIU), in various sub-specialties such as General Urology, Reconstructive Urology, Urologic Oncology, Female Urology, Pediatric Urology and or Endourology. In turn, these partnerships can lead to Research, International collaborative efforts, Publications, Scholarships and further recruitment of Volunteers.

Please visit the UroHaiti.org web site and make it your web site.

EPILOGUE
Dear Colleagues:
If you were not present at this First Joint Haitian American Urology Conference, you missed an opportunity to be part of history or to watch history in the making. This meeting that was sparked by Mike Ziegelbaum’s query after his first trip to Cap-Haïtien, was eagerly supported by the AUA, the IVUmed, the Haitian Society of Urology, the Haitian Medical Association and the Association of Haitian Physicians Abroad. The latter group played a key role in organizing this conference with the support of the Haitian Society of Urology and Dr. Margrett Osselyn-Abraham. Most of the Urologists who have been involved in Haiti in the past responded to the call. So did 13 of the 26 urologists practicing in Haiti. Altogether, there were 28 participants.
The conference went on as scheduled and allowed both the Haitian and the American sides to consider the many aspects of the situation, which have brought it to the level of a crisis and an inventory of the resources available both locally and from the organizations involved in support missions to the different medical centers of the country. The discussion was frank, albeit at times uncomfortable. At the end, we all came out completely convinced that such meeting of the minds was overdue and a sine qua non to proceed forward.
If specific solutions were not elaborated, steps to bring about changes at all levels were taken. At the end of the meeting that concluded exactly on time, the following motions were made and approved:
1- The entire group including both the American and the Haitian Urologists would meet again next November in Haiti at a specific date to be determined. There will also be an interim focused gathering of the minds at the Annual AUA conference in Orlando, FL next May 2014.
2- The assembly elected a team of nine individuals to organize the subsequent joint activities. It included:
- Angelo Gousse, MD, representing both the AUA and the AMHE
- Samuel Broaddus, MD
- Pierre Boncy, MD
- Frank Burks, MD
- Geto Dube, MD
- Henri Lanctin, MD
The group will elaborate a calendar of activities, workshops and other educational opportunities over the coming 3 or 4 years, to allow individuals to arrange their schedules accordingly. Although the website www.urohaiti.org is not completely ready, it is agreed that it will play a major role in the programming of these activities.

It is worth noting that the participants were able to acquire up to 6 CME credits for the event. In addition to being a working conference, it was also an enjoyable occasion to have personal interaction with this incredible bunch of "nice people."

As for me, it was a lot of fun (and a lot of work) to help make this meeting a reality. Now I am happy to pass the baton to Dr. Gousse.

Thank you for having given me the opportunity to serve the people of Haiti.

Louis Joseph Auguste, MD

Surgical Oncology/General Surgery
Associate Clinical Professor of Surgery
Hofstra North Shore/LIJ School of Medicine
Clinical Director of Department of Surgery/A-Service – Long Island Jewish Medical Center
President of the Long Island Jewish Medical Center Staff Society
Assistant Secretary of the Central Executive Committee of the AMHE
Coordinator of the AMHE/Justinien University Hospital Project
Co-Chair of the First Joint Haitian American Urology Conference
First Joint Haitian American Urology Conference  
Hotel Oasis International  
November 15, 2013

Roster of participants and Contact Information

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