NEWSLETTER

November 2009

International AIDS Society

Stronger Together

The International AIDS Society (IAS) is a global membership organization of professionals committed to the fight against AIDS. The IAS Newsletter is a tool for the organization's diverse members to find out more about past, ongoing and future activities at the IAS and to learn how to become involved. For more information about the IAS, to search for and contact other members, or to find breaking news in HIV & AIDS prevention, care and treatment, and updates on upcoming IAS conferences, please visit the website at www.iasociety.org.

IAS 2009 Local Co-Chair Dr. Hoosen (Jerry) Coovadia signs the Treatment Action Campaign's (TAC) Memorandum on Health Resources at a rally before the opening session. TAC's campaign is focused on meeting South Africa's targets for HIV and TB prevention and treatment by 2011.

Photo: Regina Aragón

Key Findings from IAS 2009

This edition's feature article examines how findings presented at IAS 2009 are driving changes in policy and practice page 4

Message from the President page 2

Message from the Executive Director page 2

2010 IAS Governing Council Elections page 3

Mats Ahnlund Named Deputy Executive Director page 3

Key Findings from IAS 2009 page 4

AIDS 2010 Pre-Conference Workshop page 6

Rome to Host IAS 2011 page 7A Conversation with Robin Gorna page 8

Global Funding of the AIDS Response page 9

Health Systems Strengthening at IAS 2009 page 10

Operations Research Track at IAS 2009 page 11

The IAS Talks with Peter Reiss page 12

E-mentoring for Abstract Authors page 13

IAS-ILF Initiative on Women and Children page 14

Clinical News page 15

Report from 9th ICAAP page 15

Highlights from IAS 2009 page 16

Message from the President

It was an honor to serve as International Conference Chair of the 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2009) held in July in Cape Town.

SUMMARIES OF KEY findings are included in the newsletter and a more comprehensive report examining the potential impact of new research presented will be available this month. I was particularly impressed by research that illustrated how investments in HIV have contributed to improved access to health services for women, expanded health systems capacity, and reductions in infant mortality and incidence of TB and malaria.

THE RESULTS ARE not surprising to those of us engaged in this work. Ten years ago, there was less than US$1 billion available per year for HIV programmes globally. Today $14 billion is available. These investments have generated substantial returns in addressing the HIV epidemic. In particular, four million people who would otherwise be dead are now on HIV treatment and alive. Data suggest that the number of new HIV infections may have peaked, due in part to successful prevention efforts. In addition, new evidence presented at IAS 2009 suggests that large-scale treatment programmes not only save the lives of individual patients, but also curb the epidemic by reducing viral loads and thereby reducing infectiousness.

EVIDENCE PRESENTED AT the conference also suggests that HIV programme scale-up can bolster health care infrastructure overall. As a result of investments in HIV, clinics and hospitals are being refurbished; laboratory and diagnostic capacities are being strengthened; additional cadres of health workers are being mobilized; and morale among health care workers is greatly lifted. The findings echoed those presented at a two-day IAS pre-conference meeting on health systems strengthening sponsored by the Rockefeller Foundation and the World Bank.

THE SCALE-UP OF antiretroviral therapy over the past five years has also served as a "pressure relief valve" for many poor countries with high HIV seroprevalence. Previously, hospital beds and clinics in resource-poor settings were overwhelmed by AIDS patients requiring extensive management for opportunistic infections and end-of-life care. Doctors and nurses were overworked and de-motivated. AIDS care displaced other health issues from many health systems. Recent investments in HIV and the resulting declines in morbidity and mortality have freed up resources for use on other health priorities.

OUR MAIN TASK ahead is to maintain the momentum generated by these investments. With 2010 on the horizon, the IAS will continue to serve as a global leader in advocating for universal access to HIV prevention, care and treatment.

FOR THOSE OF you unable attend IAS 2009, I encourage you to view key sessions online at *www.ias2009.org*.

Julio Montaner
IAS President

Message from the Executive Director

There's an African saying: "If you want to go fast, go alone; if you want to go far, go together." Living in Africa over the past three years taught me so much: about AIDS in the worst-affected countries; about how hard it is to turn what we know needs to happen into programmes that reach people; about how different cultures live and work.

I ENDED MY time in Africa by attending IAS 2009 in Cape Town. While I have been at nearly all of the International AIDS Conferences since Montreal (1989), this was my first Pathogenesis meeting. The conference was so impressive: a showcase for our collective wisdom and growing knowledge, and a reminder of the power of our individual and united voices.

I LOOK FORWARD to working with all of you to harness that wisdom and power in order to hasten the day when the story is told of how we conquered AIDS. This time is like no other. We have made tremendous progress. Our knowledge base has expanded dramatically. We have far more evidence about what is needed to scale up effective, comprehensive HIV treatment and prevention programmes. Yet this real potential is threatened by global recession, shortsighted calls to reapportion money out of AIDS and ill-informed competitiveness between health conditions.

THE WORK OF the IAS is more important than ever. We play a vital role bringing people together to share the latest knowledge, debate the way forward and advocate for strategies based in evidence and professionalism – not political extremism, punitive attitudes or prejudice. This month, the IAS Governing Council will agree on a new strategic plan to guide our work over the next five years. The plan has been shaped by the collective vision and commitment of our membership. It will outline the strategy for achieving our vision of a global movement

of people working together to end this epidemic.

I AM VERY grateful to IAS President Julio Montaner and the Governing Council for this opportunity to serve as your Executive Director. Over the past five years, the IAS has grown and matured dramatically under Craig McClure's stewardship. It is an honour to be asked to maintain this momentum, and a privilege to work with IAS members and staff, the conference planning committees, and all of our supporters and partners.

TWENTY YEARS AGO, AIDS advocate Vito Russo spoke of the day when the AIDS crisis ends and the story is told of the "brave group of people [who] stood up and fought and, in some cases, gave their lives, so that other people might live and be free."

THE IAS IS comprised of thousands of brave and committed women and men who are standing up and fighting. While the challenges before us are tremendous – and growing daily as the world turns its attention away from AIDS – I am convinced the work we are doing together is bringing that day closer. I am delighted to stand with you and to begin my tenure as IAS Executive Director.

Robin Gorna
IAS Executive Director

2010 IAS Governing Council Elections

Be sure to use your right as an IAS member to vote in the upcoming IAS Governing Council elections.

A CANDIDATE FOR the IAS Governing Council shall:

- Be a person working professionally in the field of HIV & AIDS.
- Have been an individual paid-up member of the IAS for at least two years.
- Be able to demonstrate leadership in their field.
- Be able to demonstrate a sustained commitment to the ethics, and the Purpose, Vision and Mission of the IAS.
- Be able to demonstrate knowledge of HIV & AIDS organizations, societies and networks within their region and engagement with them.
- Be prepared to participate in the annual GC retreat in November and an annual GC meeting in conjunction with the International AIDS Conference/the IAS Conference on HIV Pathogenesis, Treatment and Prevention.
- Be nominated by at least two members of the IAS (other than themselves), who must have been IAS members for at least one year.
- Agree to nomination.

Key Dates: GC Elections

January: Call for nominations goes out by email to eligible voters*

February: Nominations close

April: Call for votes goes out by email to eligible voters

May: Voting closes

June: Confirmation of elected candidates

July: Election results posted on the IAS website

*Individuals who have been paid-up IAS members for at least one year

TO FIND OUT more about the election procedures, visit the Rules and Procedures page on the IAS website: *www.iasociety.org*.

Editorial Committee: Ron MacInnis, Shirin Heidari, Erika Lundstrom, Jacqueline Bataringaya, Scott Sanders, Karen Bennett

Web Coordinator: Mona Dolan

© International AIDS Society, Geneva
Email: editor@iasociety.org ■

What's New on the IAS Website

A variety of new resources is available at www.iasociety.org and the IAS will add updates on recent and ongoing initiatives in the coming weeks. Check back regularly for the latest releases. Following are highlights of what is posted and forthcoming.

- Background paper for *"Towards a Cure": HIV Reservoirs and Strategies to Control them,* AIDS 2010 Pre-Conference Workshop (details on page 6)
- Products of the IAS-Industry Liaison Forum mapping exercise on clinical and operations research related to the needs of women and children (details on page 14), including:
  - summary report
  - draft environmental scan
  - webcast of consultation at IAS 2009
  - final recommendations (coming soon)
- Presentations from IAS 2009 pre-conference meeting *Accelerating the Impact of HIV Programming on Health Systems Strengthening* (details on page 10) and peer-reviewed meeting report (coming soon)
- Presentations from IAS Professional Development Programme at IAS 2009 *Learning by Doing – Using Operations Research to Strengthen HIV Prevention, Care and Treatment Scale-up in Resource-limited Settings*
- IAS 2009 Impact Report

Also Coming Soon:

- IAS Strategic Framework for 2010–2014

Mats Ahnlund Named Deputy Executive Director

Mats Ahnlund, who most recently served as the IAS Director of Operation and Conferences, has been appointed Deputy Executive Director.

IN HIS NEW role, Ahnlund will focus primarily on internal issues and continue as the director for both the International AIDS Conference and the IAS Conference on HIV Pathogenesis, Treatment and Prevention. In making the appointment, Executive Director Robin Gorna noted her goal of strengthening the ties between the IAS's conference-related work and its other initiatives.

AHNLUND JOINED THE IAS in September 2003 as its first Conference Director. Previously, he worked with other Geneva-based NGOs in the areas of meetings, member services and increasingly in HIV- and AIDS-related project development.

IAS President and IAS 2009 Chair Dr. Julio Montaner addresses the Treatment Action Campaign rally before the opening session. Photo: Regina Aragón

Findings from IAS 2009 Driving Changes in Policy and Practice

This review condenses a detailed IAS 2009 report by Mark Mascolini and Rodney Kort, which is posted at www.iasociety.org.

RESULTS OF NEW research presented at the 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2009) are already propelling changes in national and international guidelines on caring for people living with HIV and in clinical plans for preventing and treating HIV infection. Especially in the realms of vertical (mother-to-child) transmission, heterosexual transmission and antiretroviral initiation, findings presented at the conference contribute to a critical mass of new data likely to support vigorous initiatives in clinical care.

ART Cuts Vertical Transmission Rate Below 1% During Breastfeeding

IN A RANDOMIZED Botswana trial, triple-drug antiretroviral therapy (ART) for mothers with HIV lowered vertical transmission during breastfeeding to less than 1%, the lowest rate ever recorded in nursing infants.[1] Known as the Mma Bana trial, the research involved 730 women who took zidovudine/lamivudine with abacavir, lopinavir/ritonavir or nevirapine. All women began ART from 26 to 34 weeks gestation and aimed to continue until rapid weaning six months after delivery. Viral suppression rates exceeded 90% with all three regimens at delivery and throughout breastfeeding. Only seven HIV transmissions occurred through six months after delivery for an overall transmission rate of 1%.

TWO OTHER STUDIES also documented lower vertical transmission rates with maternal ART than with no intervention or other interventions during breastfeeding, including the 2,367-infant randomized BAN trial[2] and the randomized Kesho Bora trial involving 805 infants in Burkina Faso and Kenya.[3] A study of 3,273 pregnant women in Malawi and Mozambique recorded significantly lower rates of prematurity, abortion and stillbirth in women who started nevirapine-based ART than in those who did not.[4]

CONSISTENTLY LOW VERTICAL transmission rates when mothers begin standard triple-drug ART during pregnancy and continue through breastfeeding argue strongly for rapid revision of antiretroviral guidelines during pregnancy, delivery and nursing. The World Health Organization and national guideline bodies are considering these results and others with an eye toward revamping treatment advice.

First- and Second-line ART for Infants in Resource-poor Settings

RESULTS OF A South African trial could reshape early ART planning for children exposed to single-dose nevirapine (sdNVP) at birth, if the findings are confirmed.[5] Current guidelines for sdNVP-exposed children call for a first-line regimen including the protease inhibitors (PIs) lopinavir/ritonavir because infants infected despite sdNVP often have virus resistant to the nonnucleosides nevirapine and efavirenz. However, co-formulated generic nevirapine-based regimens are cheaper, easier to use and often less toxic than lopinavir/ritonavir regimens.

THE NEVEREST STUDY involved 322 HIV-positive children under two years old who had received sdNVP. Children who reached a viral load below 400 copies/mL after three months of treatment with lopinavir/ritonavir were randomized to continue that regimen or substitute nevirapine for the PIs. Six months after randomization, significantly more children who switched to nevirapine maintained a viral load below 50 copies, although more children who stayed with lopinavir/ritonavir maintained a viral load below 1,000 copies/mL. The NEVEREST investigators believe their results provide "proof of concept that re-use of nevirapine following successful suppression on lopinavir/ritonavir-based therapy is possible under some circumstances for [sdNVP-exposed] HIV-infected children."

Treating HIV Can Curb Tuberculosis and Malaria

A COMPARISON OF 2005 and 2008 tuberculosis (TB) and HIV rates in a well-defined South African township yielded strong evidence that wider ART accounts for a significant decline in TB prevalence.[6] An analysis of TB rates in 762 people surveyed in 2005 and 1,251 surveyed in 2008 showed that TB prevalence fell from 3% in 2005 to 1.8% in 2008, a significant decline in an analysis adjusted for age, gender and HIV status.

South African Deputy President Kgalema Motlanthe addresses the opening session. Photo: © IAS/Simon Deiner/SDR Photo

Decreasing TB prevalence could be traced almost entirely to HIV-positive people in the township, where antiretroviral access expanded greatly after 2005. Other potential explanations of the falling TB rate did not withstand scrutiny.

IN A STUDY of 360 Ugandans with a new TB diagnosis within two years of starting ART or starting TB drugs within two years of ART initiation, TB incidence fell from 9.91 cases per 100 person-years 0 to 3 months after starting ART, to 5.14 cases after 3 to 6 months, 2.16 cases after 6 to 12 months, and 0.82 cases after 12 to 24 months.[7] As IAS 2009 ended, South African authorities said they would consider providing ART to everyone co-infected with HIV and TB.

A PROSPECTIVE UGANDAN cohort study traced a steeply declining malaria incidence after ART initiation, from 591 cases per 100 person-years after one year to 476 cases after two years, 259 cases after three years, and 153 cases after four years.[8] Pre-ART CD4 count below 10 cells/µL correlated with a higher malaria risk, while cotrimoxazole prophylaxis lowered the risk. These sharply falling malaria rates bolster the rationale for wider, earlier ART in populations with high malaria prevalence.

Morolake Odetoyinbo, CEO of Positive Action for Treatment Access in Nigeria, delivers the community statement at the closing session.
Photo: © IAS/Simon Deiner/SDR Photo

Innovations in Task-shifting and Decentralization

SEVERAL STUDIES HIGHLIGHTED how task-shifting and decentralization of interventions can leverage scarce health care resources to support treatment scale-up. A comparison of traditional facility-based ART delivery with home-based care delivered by trained lay people in Uganda found that both resulted in excellent and equivalent clinical outcomes including mortality, CD4 count and virologic response.[9] Home-based care substantially reduced costs for patients.

RETROSPECTIVE ANALYSIS OF a Lesotho programme that assigned routine patient management to nurses and referred patients co-infected with HIV and TB to trained counsellors found that, after two years, annual enrolment more than doubled, the proportion of adults presenting with less than 50 CD4 cells/µL fell from 27% to 13%, and 80% of patients were retained in care at 24 months[10]. In Rwanda, a programme that used trained community volunteers to screen 3,340 HIV-positive individuals for TB successfully referred 400 for clinical assessment.[11]

Activists call for changes in treatment guidelines.
Photo: Regina Aragón

References

All reports are from the 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2009), 19–22 July 2009, Cape Town, South Africa. Abstracts, posters and slides are available through the Programme-at-a-Glance at www.ias2009.org.

1. Shapiro R et al. A randomized trial comparing highly active antiretroviral therapy regimens for virologic efficacy and the prevention of mother-to-child HIV transmission among breastfeeding women in Botswana (the Mma Bana Study). WELBB101.

2. Chasela C et al. Both maternal HAART and daily infant nevirapine are effective in reducing HIV-1 transmission during breastfeeding in a randomized trial in Malawi: 28 week results of the Breastfeeding, Antiretroviral and Nutrition (BAN) Study. WELBC103.

3. de Vincenzi I, Kesho Bora Study Group. Triple-antiretroviral (ARV) prophylaxis during pregnancy and breastfeeding compared to short-ARV prophylaxis to prevent mother-to-child transmission of HIV-1: the Kesho Bora randomized controlled clinical trial in five sites in Burkina Faso, Kenya. LBPEC01.

4. Marazzi MC et al. Favorable pregnancy outcomes with reduction of abortion, stillbirth, and prematurity rates in a large cohort of HIV+ women in southern Africa receiving highly active antiretroviral therapy for prevention of mother-child-transmission.TUAC102.

5. Coovadia A et al. Randomized clinical trial of switching to nevirapine-based therapy for infected children exposed to nevirapine prophylaxis. MOAB103.

6. Middlekoop K et al. Widespread ART is associated with decline in TB prevalence. WELBB105.

7. Hermans SM et al. The use of efavirenz is associated with a decreased incidence of tuberculosis after antiretroviral therapy initiation in an urban HIV clinic in sub-Saharan Africa.TUPEB136.

8. Kasirye R et al. Epidemiology of malaria in HIV infected Ugandan patients on antiretroviral therapy—a prospective cohort study. TUPDB104.

9. Jaffar S et al. The impact of home-based care compared with facility-based HIV care on virologic failure and mortality: a cluster randomised trial. MOAD101.

10. Cohen R et al. Nurse-driven, community-supported HIVAIDS care and treatment: 2 year antiretroviral treatment outcomes from a primary care level program in rural Lesotho. MOAD102.

11. Moen M et al. Community involvement in TB and HIV/AIDS integrated care in AIDS relief-supported rural health facilities in Rwanda June–November 2008. TUPDD103.

Welcoming delegates at the opening ceremony.
Photo: © IAS/Simon Deiner/SDR Photo

Workshop chair Françoise Barré-Sinoussi, 2008 Nobel Laureate for Medicine and IAS Governing Council Member.

Towards a Cure: HIV Reservoirs and Strategies to Control Them

IAS AIDS 2010 Pre-Conference Workshop: 16–17 July 2010
Vienna, Austria

SCIENTIFIC RESEARCH HAS led to remarkable discoveries in the quarter century since the discovery of HIV. Today, individuals living with HIV can expect to live a relatively normal life if they are diagnosed and treated early, and have access and adhere to potent antiretroviral drug regimens.

IT IS WIDELY known, however, that current antiretroviral drugs fail to completely eradicate the virus from the body because HIV remains in some cells in a non-replicating stage known as latent infection. The persistence of latent HIV reservoirs is one of the main barriers to the eradication of HIV infection and a cure.

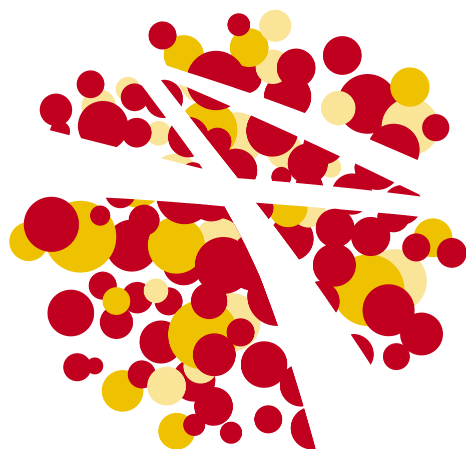
STRATEGIES CURRENTLY BEING investigated to control HIV reservoirs may hold the key to a cure for HIV disease. In order to promote state-of-the–art research on viral reservoirs and increase the focus on basic science at the XVIII International AIDS Conference (AIDS 2010) in Vienna, the IAS is organizing a high-level, invitation-only basic science workshop on HIV reservoirs and strategies to control them immediately prior to the conference.

PROF. FRANÇOISE BARRÉ-SINOUSSI, of the Institut Pasteur and 2008 Nobel Laureate for Medicine and IAS Governing Council Member, will chair the workshop. As Prof. Barré-Sinoussi noted in July 2009 at the 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention, controlling HIV reservoirs requires targeted investments to extend ongoing research, as well as the integration of complementary basic and clinical science research. To enhance the interactions between basic scientists and other stakeholders in the HIV response, the workshop will include clinicians and be followed by translational sessions at AIDS 2010 with reports on the discussions held at the workshop.

How to Participate

RELEVANT BASIC SCIENCE abstracts submitted to AIDS 2010 will be considered for the workshop. The IAS encourages submission of abstracts on *www.aids2010.org* from 1 November 2009 to 10 February 2010. Scholarships will be available for abstract presenters.

A LIMITED NUMBER of scholarships will also be awarded to non-presenters to cover participation in the workshop and the conference. The application will be available on *www.aids2010.org* from 8 December 2009 to 10 February 2010.



AIDS 2010
XVIII INTERNATIONAL AIDS CONFERENCE
JULY | 18-23 | 2010 | VIENNA AUSTRIA

- **ABSTRACT SUBMISSIONS**
  1 November 2009 – 10 February 2010
- **REGISTRATION**
  Opens 1 December 2009
  Late surcharge added 25 February 2010
- **ACCOMMODATION BOOKINGS**
  Open 1 December 2009
- **GLOBAL VILLAGE AND YOUTH PROGRAMME APPLICATIONS**
  1 December 2009 – 10 February 2010
- **WORKSHOPS APPLICATIONS**
  1 December 2009 – 10 February 2010
- **SATELLITE APPLICATIONS**
  1 December 2009 – 31 March 2010
- **EXHIBITION SPACE APPLICATIONS**
  1 December 2009 – 31 May 2010

www.aids2010.org

Photo: © iStock

Rome to Host IAS 2011

THE INTERNATIONAL AIDS Society (IAS) announced the selection of Rome, Italy, as host of the world's largest open scientific conference on HIV & AIDS – the 6th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2011) – to be held from 17–20 July 2011 at the Auditorium Parco della Musica. The event will be organized by the IAS, in partnership with Istituto Superiore di Sanità (Italian National Institute of Health), which is the leading technical and scientific body of the Italian National Health Service.

HELD EVERY TWO years, the IAS conference attracts over 5,000 participants from all over the world. It is a unique opportunity for the world's leading scientists, clinicians, public health experts and community leaders to examine the latest developments in HIV-related research, and to explore how scientific advances can be translated quickly into effective interventions to prevent and treat HIV, particularly in low- and middle-income countries.

IAS PRESIDENT-ELECT, DR. Elly Katabira (Uganda), has been appointed the International Conference Chair of IAS 2011, while Italian infectious disease specialist, Dr. Stefano Vella, has accepted the position of Local Co-Chair. Dr. Katabira will assume the IAS presidency in August 2010.

"IAS 2011 WILL be an opportunity to highlight new scientific developments and the need to rapidly implement them in the field," said Dr. Katabira. "We will also continue to emphasize monitoring the effectiveness of programmes as we scale up treatment and prevention, given that we are only 30% of the way to fulfilling global commitments to universal treatment. The fact that, while focusing on the very serious task at hand, we will also have the chance to experience the rich history and beauty of Rome, is most definitely icing on the cake."

"OUR EXPERIENCE AT IAS 2009 in Cape Town showed what remarkable progress has been made over the past ten years, but it has also highlighted how far we have to go," said Dr. Stefano Vella. "Rome's unique history and character makes it a living bridge between the global South and North. I look forward to making the 2011 conference another milestone in the fight against inequalities in access to HIV prevention and treatment and, in general, to health."

DR. ELLY KATABIRA is Professor of Medicine and former Deputy Dean for Research, Faculty of Medicine at Makerere University. He is the Clinical Advisor at the AIDS Clinic in Mulago Hospital and at the Infectious Diseases Institute of Makerere University College of Health Sciences in Uganda. Dr. Katabira co-founded The AIDS Support Organization (TASO) and is their Medical Advisor. His research interests include clinical trials and operational research issues on various aspects of AIDS care and support, both within institutions and in the community.

DR. VELLA IS Head of the Department of Therapeutic Research and Medicines Evaluation of the ISS, where his research interests include: the study of HIV resistance to antiretroviral drugs; the mechanisms of immune reconstitution; and the perfecting of antiretroviral therapy. He is Coordinator of the European Commission–funded HIV Clinical Trials Network (NEAT) and also participated in the development of the European and Developing Countries Clinical Trials Partnership (HIV, TB and Malaria). Dr. Vella is a former member of the IAS Governing Council and previously served as its President from 2000 to 2002.

THE MOST RECENT IAS conference (IAS 2009) was held in Cape Town, South Africa, from 19–22 July. IAS 2007 was held in Sydney, Australia.

Editors-in-Chief: *Elly Katabira, M.D. (Uganda), Susan Kippax, Ph.D. (Australia), Mark Wainberg, Ph.D. (Canada)* **Executive Editor:** *Shirin Heidari, Ph.D. (Switzerland)*

Clinical presentation and aetiologies of acute or complicated headache among HIV-seropositive patients in a Ugandan clinic
Michael Katwere, Andrew Kambugu, Theresa Piloya, Matthew Wong, Brett Hendel-Paterson, Merle A Sande, Allan Ronald, Elly Katabira, Edward M Were, Joris Menten, Robert Colebunders

Brazilian Network for HIV Drug Resistance Surveillance: a survey of individuals recently diagnosed with HIV
Lilian A Inocencio, Anderson A Pereira, Maria Cecilia A Sucupira, Jose Carlos C Fernandez, Celia P Jorge, Denise FC Souza, Helena T Fink, Ricardo S Diaz, Irina M Becker, Theodoro A Suffert, Monica B Arruda, Olinda Macedo, Mariangela BG Simao, Amilcar Tanuri

Characterizing trends in HIV infection among men who have sex with men in Australia by birth-cohorts: results from a modified back-projection method
Handan Wand, David Wilson, Ping Yan, Andrea Gonnermann, Ann McDonald, John Kaldor, Matthew Law

HIV/AIDS, growth and poverty in KwaZulu-Natal and South Africa: an integrated survey, demographic and economywide analysis
James Thurlow, Jeff Gow, Gavin George

The role of disclosure in relation to assent to participate in HIV-related research among HIV-infected youth: a formative study
Amy L Corneli, Lara Vaz, Jennyfer Dulyx, Serge Omba, Stuart Rennie, Frieda Behets

www.jiasociety.org

Robin Gorna with Ambassador Eric Goosby, U.S. Global AIDS Coordinator, IAS President Dr. Julio Montaner and former IAS Executive Director Craig McClure.
Photo: Regina Aragón

Global Experiences Guide New Executive Director

A Conversation with Robin Gorna

ROBIN GORNA JOINED the IAS as Executive Director at the beginning of September, coming from South Africa where she was the Senior Regional Health and AIDS Advisor for the U.K. Department for International Development (DFID). Robin's 24 years of experience in the AIDS field has spanned the globe and a variety of organizations. Her long history with the IAS goes back to 1998, when she served as Community Co-Chair of the XII International AIDS Conference in Geneva.

ORIGINALLY FROM MANCHESTER, she has served as the director of health promotion at the Terrence Higgins Trust in London and Executive Director of the Australian Federation of AIDS Organisations, where she was also Co-Chair of the 6th International Conference on AIDS in Asia and the Pacific (ICAAP). Prior to her post in South Africa, Robin headed DFID's Global Policy Team on AIDS where she developed the first U.K. government strategy on AIDS in developing countries and secured international agreement for the goal of universal access.

Q: What attracted to you to the position of IAS Executive Director?

EARLY ON IN the AIDS epidemic, I was a community treatment activist. It was important to me to demystify and translate the science, to build the relationship between evidence and the work we do. This work is in many ways a continuation of those efforts. The IAS is the place that connects the science we need to the programmes and the people who are doing the work on the frontlines.

Q: How are your past experiences in Australia, South Africa and elsewhere helping to guide your work at the IAS?

I MOVED TO Australia because I wanted to understand a country that has mounted a very successful response to AIDS. They did the right thing in the early days, addressed the fundamentals and built a strong partnership between community, science and government. I wanted to understand what happened there and why. Particularly relevant about that experience was that I was leading a membership organization. The work was similar to the work of the IAS because it was a mix of advocacy, policy and meetings. Working in that region and serving as Co-Chair of ICAAP also helped me develop an appreciation for the epidemic in Southeast Asia and Asia.

I WENT TO South Africa for the opposite reason. I wanted to work where the epidemic was worst. I needed to understand and make my contribution in that part of the world. It was a real privilege to be a part of that response. It was a challenge to be there as a donor, to understand what you can and cannot do. I learned a lot from those that I endeavored to support. I worked throughout the region and saw the different responses in different countries. In South Africa they have the largest epidemic and the weakest response, as a result of political factors. That experience taught me a lot about the difference between what we know and what we do. That will guide and inform me at the IAS. It can be a risk if we look at the evidence but don't think about turning that evidence into a reality for those on the ground.

Q: What do you see as the greatest challenges facing IAS members in the field and how is the IAS supporting them in responding?

ONE OF THE large challenges is turning evidence into practice. It's very important for us to support that process. There is always a delicacy in what we can do. We are international in scope with 14,000 members, but only 40 to 50 people at the secretariat. We cannot intervene locally, but if we can support those on the ground by bringing the key conversations together through the conferences, the website, and the body of knowledge of best practices then we provide a great service.

ANOTHER CHALLENGE, OF course, is translating the evidence into practice when governments do not accept the evidence. Then we can speak truth to power. Being that voice and explaining what the evidence tells us is a crucial part of our job. That is why our policy and advocacy work has grown so much in recent years.

THE GLOBAL RECESSION and changes in funding priorities are massive challenges that we are taking on directly. We are showing people the importance of the work we do. We are making the link between what we know scientifically and the fact that we need the money to turn that knowledge into practice and programmes.

Q: Are there other thoughts you would like to share with the IAS membership?

I WOULD LIKE to see if there are more and better ways to include the membership in what we do. As we move forward one of the things I am most interested in is how we can involve the members most effectively, how we can engage you in defining the policy agenda. I want to hear your views on the most pressing issues before us.

Global Funding of the AIDS Response

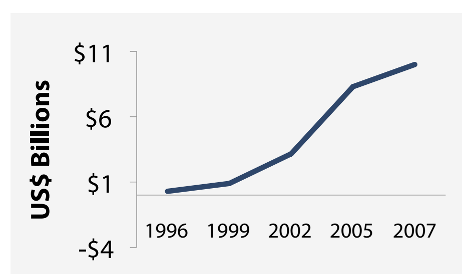
By Khaled Ahmed, Julia Smith and Alan Whiteside, Health Economics and HIV/AIDS Research Division, University of KwaZulu-Natal, South Africa

THERE HAS BEEN a great leap forward in the response to the global AIDS epidemic since 2001. During the late 1980s and early 1990s, AIDS was not a global funding priority; the world spent less than US$300 million annually. Global funding began to increase

in 1996, with the inception of UNAIDS, an effort to better coordinate the response of the United Nations to the epidemic. The availability of global resources accelerated further with the creation of the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) in 2001, and the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) in 2003. The enormous increase in funding since 2001 is shown in Figure 1.

THE CONTINUED FINANCING of a sufficient and sustained response will require long-term planning. As the push towards universal access to HIV treatment for all who need it by 2010 becomes more urgent, it is critical that parties external to the process closely monitor global funding.

Figure 1. Global Spending on AIDS (1987–2007)

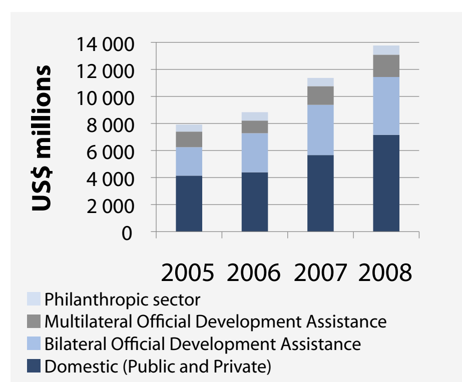


Source: Making the Money Work: UNAIDS Technical Support to Countries. Geneva, UNAIDS, 2008.

Current Funding

Figure 2 captures the evolution of four central sources of funding for AIDS from 2002 to 2008. The largest single source is the domestic budgets of AIDS-affected countries (52%).[1] Domestic funds include out-of-pocket-expenditures by individuals and households towards the direct and indirect costs of care and treatment and are estimated to be about US$1 billion annually. Countries in sub-Saharan Africa have fewer domestic capabilities to tackle the disease (an average of 40% of funding comes from domestic budgets in this region) and are therefore heavily reliant on foreign financial assistance.[2]

Figure 2. Investments Available for AIDS



Source: See reference 7.

FOREIGN FUNDING HAS been channeled through direct bilateral donations (31%) multilateral funding agencies (12%) and from the philanthropic sector (5%). The United States dominates the funding landscape, contributing to 51% of total foreign aid, the majority of which is channeled through PEPFAR. The United Kingdom is the second largest donor at 12.6%, with the remaining (mainly European) donor countries collectively contributing up to one third of the funds. Smaller donors appear to prefer releasing funds through multilateral channels such as UNAIDS, the World Bank's Multi-Country AIDS Programme (MAP), the Global Fund and UNITAID.[3]

THE PHILANTHROPIC SECTOR is a fast-growing source of funding for HIV & AIDS that includes individual donors, foundations, faith-based organizations and companies, and is generally more flexible than national programmes. This sector donates an estimated $1 billion annually,[4] with U.S.- and European-based foundations and companies contributing $500 million and $115 million, respectively. Presently, the leading philanthropic funders are the Bill & Melinda Gates Foundation, the Ford Foundation and the Henry J. Kaiser Family Foundation, which together contributed a total of $340 million in 2007.

FUNDING FOR AIDS programmes continues to fall short of actual resource needs.[5] The funding gap has grown since 2005 and UNAIDS estimates highlight that, of the $22.1 billion needed in 2008, only $15.6 billion was available.[6] This $6.5 billion funding gap translates into a 29% shortfall in the funds needed to provide HIV prevention, treatment and care (Figure 3).

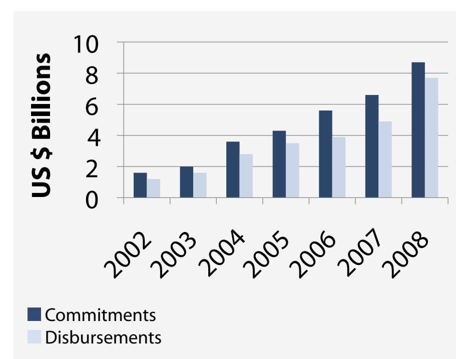
Figure 3. Funding Gap between Resource Needs and Resource Availability, 2005–2007

Source: See reference 5.

Predictability of Funds

Predictable financing is crucial. From 2002 to 2008, actual disbursements of aid continued to consistently fall below commitments pledged by foreign governments (Figure 4). The failure of donors to meet their commitments augments the funding gap and creates a scenario in which treatment plans cannot be expanded due to the unpredictability of funding. Furthermore, there is the risk of being unable to sustain current treatment programmes, which could result in increased drug resistance and mortality.

Figure 4. Comparison of Commitments and Disbursements



Source: See reference 3.

Sustainability of Funds

WORRYINGLY, THE U.S. and the U.K., which provide a combined 63.6% of all HIV & AIDS financial resources, have been hit very hard by the global economic crisis. Given that sustainable funding must be secured for the long-term, innovative financing that reduces the potential for aid volatility should be encouraged. The 'Debt2Health' mechanism implemented by the Global Fund in 2007 is an example of such financing. Under this programme, country debt repayments are swapped for credit to be spent on Global Fund–approved activities. This boosts country capabilities in tackling AIDS.

Conclusion

THE GLOBAL FUNDING response to AIDS is complex and is difficult to track accurately. An estimated $25.1 billion will be required from domestic and foreign finances in 2010 for low- and middle-income countries to achieve their country-defined targets for universal access.[7] However, if current trends continue, it is very likely this target will not be met, and, consequently, the returns on past investments will be eroded and lives will be lost.

References

1. The Evolution and Future of Donor Assistance for HIV/AIDS, Working Paper. New York, aids2031, 2009.

2. Report on the Global AIDS Epidemic. Geneva, UNAIDS, 2008.

3. Kates J, Lief E, Avila C. Financing the Response to AIDS in Low- and Middle-Income Countries: International Assistance from the G8, European Commission and other Donor Governments in 2008. Washington, DC, Henry J. Kaiser Family Foundation; Geneva, UNAIDS, 2009.

4. The Future Role of the Philanthropic Sector Fighting HIV/AIDS. Working Paper No.15. New York, aids2031, 2009.

5. Financial Resources Required to Achieve Universal Access to HIV Prevention, Treatment, Care and Support. Geneva, UNAIDS, 2007.

6. Kates J, Lief E, Avila C. 2009.

7. What Countries Need, Investments Needed for 2010 Targets. Geneva, UNAIDS, 2009.

Columbia University's Dr. Wafaa El-Sadr delivers remarks at a satellite session offering highlights from the pre-conference meeting on health systems strengthening. Photo: © IAS/Simon Deiner/SDR Photo

HIV Programme Design: Lessons Learned for a Broader Impact

In her presentation at *Accelerating the Impact of HIV Programming on Health Systems Strengthening*, held prior to IAS 2009, Dr. Wafaa El-Sadr of Columbia University in New York City examined the factors that make HIV programmes potential models for other chronic diseases.

DR. EL-SADR NOTED that "HIV programmes represent the first successful large-scale chronic disease programme in resource-limited settings in history. We can leverage their successes to revitalize and enhance responses to other health priorities." Dr. El-Sadr identified important characteristics of HIV that have advanced the development of programme design and service-delivery models with potential for broader impact. They include:

- HIV impacts throughout the lifecycle – it affects newborns, children, women, pregnant women and adults.
- HIV affects families through transmission, and socio-economic and psychosocial impacts.
- HIV disease is a long-wave cycle of periods of health and periods of illnesses – individuals may experience many years of feeling well, often being unaware of their HIV infection, and then face periods of on- and off-again illness, with the severity of illness intensifying over time.
- HIV involves diverse periods in a person's lifespan during which they have very different health care needs.
- Laboratory monitoring and secure drug supply are essential elements of an HIV treatment programme.
- High levels of retention in care and adherence support are fundamental to treatment success.
- HIV is associated with stigma and discrimination.
- Most importantly, both HIV prevention and HIV treatment are chronic endeavors that rely on effective delivery of primary health care.

DR. EL-SADR POINTED out that at the start of HIV scale-up, health systems were clearly in crisis. Many facilities were dilapidated, hospitals and clinics overcrowded, pharmaceutical supply systems barely functional, the health workforce demoralized and often overworked. However, HIV programmes in many countries worked through such challenges to develop patient-centred approaches; adopted innovations in the health workforce, including use of non-physician clinicians and task shifting; and strengthened the role of nurses as the backbone of the health system.

DR. EL-SADR NOTED that the multiplicity of clinical and psycho-social needs of people living with HIV fostered the development of multidisciplinary teams, breaking down hierarchies that existed between and across disciplines. Systematic approaches to health maintenance, responses to acute illness, integrated primary care and linkages across other disease programmes, including tuberculosis, were among the range of strategies developed. In addition HIV scale-up has strengthened systems for referral, procurement, supply management, and medical records.

SHE ADDED THAT HIV programmes pioneered strategies for retention in care, adherence support and defaulter tracking. Many countries succeeded in mobilizing stakeholder engagement and developing mechanisms to create demand for services. Today, involvement of affected communities has focused attention on human rights, social determinants and gender, and is seen by all actors as central to HIV programme accountability and sustainability. In addition, trend analysis shows that routine data collection systems developed for surveillance, monitoring and evaluation of HIV programmes continue to drive programme quality and effectiveness, and inform policy at all levels of the health system.

DR. EL-SADR CONCLUDED that HIV programmes have contributed to the design of new public-sector service-delivery systems for chronic disease, the principles of which can be applied to other communicable and non-communicable diseases. She added that addressing health systems barriers to HIV scale-up would also alleviate common challenges faced by many other health conditions. Lessons learned from scaling up effective systems for chronic HIV programmes are critical to informing investments geared towards improvement of overall health systems performance, advancing other health-related millennium development goals, including maternal and child health, and achieving the overarching goal of primary health care for all.

Experts, Researchers, Implementers Review Evidence of HIV Programming's Impact on Health Systems

Evidence presented at *Accelerating the Impact of HIV Programming on Health Systems Strengthening* – a two-day meeting held prior to IAS 2009 and sponsored by the Rockefeller Foundation and the World Bank – suggests that scaling up of HIV programmes can lead to overall improvements in health systems. Researchers noted that the dramatic increase in funding and expansion of service delivery for HIV prevention, treatment and care, especially in sub-Saharan Africa, required the rapid scale up of a new type of public-sector health programme. Substantial progress in delivering HIV services has been achieved; nearly four million people are currently receiving antiretroviral therapy.

The meeting was structured around four sessions: health economics and financing, service delivery, health workforce, and research methodology. Results from the pre-conference contributed to a two-hour feedback satellite session at IAS 2009 where meeting highlights were presented. A full report from the meeting will be available at *www.iasociety.org* by 1 December 2009.

Launch of Operations Research Track at IAS 2009 a Success

THE FIRST-EVER OPERATIONS Research Track at the 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2009) was deemed "highly successful" by IAS President Julio Montaner. Of the 825 abstracts, including 55 late-breakers, submitted to the new track, 469 were accepted – 24 for oral presentation, 18 for poster discussion, 248 for poster exhibition and an additional 191 for inclusion on the conference CD-ROM. In addition, the IAS sponsored a two-day professional development workshop on operations research that brought together 25 participants from around the world[1], and hosted a satellite meeting convened in partnership with the International Union Against Tuberculosis and Lung Disease (The Union).[2]

ADDRESSING CONCERNS ABOUT varying definitions of operations research, Dr. Serge Xueref of the Global Fund to Fight AIDS, TB and Malaria defined operations research, in his presentation at the satellite meeting, as "any research that produces practically-usable knowledge (evidence, findings, information, etc.) that can improve programme implementation (effectiveness, efficiency, quality, access, scale-up or sustainability), regardless of the type of research (design, methodology, or approach".[3] He noted that operations research is sometimes called "the science of better".

ALSO PRESENTING AT the satellite, Dr. Rony Zachariah from Médecins Sans Frontières noted that basic science research and randomized, controlled trials conducted with inclusion and exclusion criteria and efficacy as the end point are NOT operations research. He added that operations research helps generate information on how a programme intervention translates into benefit for the heterogenous world of routine patient care. He noted, however, that there was inadequate use of programme reporting and routine data monitoring systems on HIV cases and outcomes to generate questions for operations research.

DR. ZACHARIAH HIGHLIGHTED key enabling factors for successful operations research projects including:

- ensuring direct relevance of research questions to service delivery and programme implementation
- involvement and partnership with local programmes, moving from outsourcing research to academic institutions towards co-ownership and shared responsibility between researchers, implementers and non-governmental organizations
- building capacity and a critical mass for research
- building writing skills for publishing in order to enhance scientific excellence through peer-review process
- translating research findings into policy and practice in order to continue the process of learning by doing.

Dr. Serge Xueref of the Global Fund to Fight AIDS, TB and Malaria reviews operations research in the Global Fund's grant-making portfolio.
Photo: © IAS/Simon Deiner/SDR Photo

Figure 1. Overview of Operations Research in Global Fund Grants

Global Fund 'Round'	Number of Approved Proposals (at date of analysis)	Number and Percentage of Grants with OR Component	Average Budget for OR Component (per proposal) / Percentage of Total Proposed Budget
Rounds 1–5	363	70 (19%)	US$400,000 (2.6%)
Round 6	85	44 (52%)	US$434,000 (4.4%)
Round 7	64	37 (58%)	US$360,000 (2.5%)

Source: Xueref S. Operations research in the Global Fund: Status and way ahead, in collaboration with partners. IAS 2009. SUSAT1404.

DR. XUEREF POINTED out that as of 14 July 2009, the Global Fund had disbursed close to US$8 billion through almost 600 grants. As outlined in Figure 1, the percentage of those funds dedicated to operations research varied from 2.5% to 4.4%, depending on the funding round. Dr. Xueref noted that a 5 to 10% investment in operations research by the Global Fund and other implementing partners would constitute significant dedicated resources. Delegates concluded that a strong advocacy push within country coordinating mechanisms is needed to integrate operations research into national programmes and ensure support for translation of research findings into policy and practice.

THE TRACK D rapporteur report presented at the closing session, available through the Programme-at-a-Glance (PAG) at *www.ias2009.org*, provides an overview of the operations research presented at the conference. Daily rapporteur reports, also available through the PAG, provide additional details.

References

1. Professional Development Programme: Learning by Doing – Using Operations Research to strengthen HIV prevention, care and treatment scale up in resource-limited settings. *www.ias2009.org/subpage.aspx?pageId=354*.

2. Learning by Doing? Operational Research to Strengthen HIV Prevention, Care and Treatment Scale-up in Resource-Limited Settings: What, Why and How? (SUSAT14). *www.ias2009.org/pag/PSession.aspx?s=2446*.

3 Framework for Operations and Implementation Research in Health and Disease Control Programs. Geneva, Global Fund to Fight AIDS, Tuberculosis and Malaria (*http://www.theglobalfund.org/documents/me/FrameworkForOperationsResearch.pdf*, accessed 16 September 2009).

The IAS Talks With Dr. Peter Reiss, IAS Regional Representative in Europe

Peter Reiss, M.D. Ph.D. is Professor of Medicine, with a special focus on the complications of HIV treatment, at the Academic Medical Center (AMC), University of Amsterdam, the Netherlands, where he is a senior staff member in the Division of Infectious Diseases, Tropical Medicine and AIDS.

DR. REISS ALSO has served as Deputy Director of the Dutch National AIDS Therapy Evaluation Center (NATEC), which until early 2006 coordinated HIV & AIDS clinical trials in the Netherlands. In addition, he acts as Scientific Adviser to IATEC in Amsterdam, which designs and conducts clinical trials worldwide, particularly, but not solely, in the field of HIV.

DR. REISS HAS served on several European and U.S. committees reviewing national HIV clinical research programmes, and currently serves on the scientific advisory boards of the French National Agency for AIDS Research (ANRS) and the Swiss HIV Cohort Study. He is a member of the Core Committee of the Scientific Committee for the biannual Glasgow International Congress on Drug Therapy in HIV Infection and, as of 2008, President of the European AIDS Clinical Society (EACS). He is member of the editorial board of various scientific journals and one of two clinical HIV Section Editors of Antiviral Therapy.

Q: Dr. Reiss, how do you see your role as the IAS Regional Representative in Europe?

I WOULD SAY that one of my roles is to try and bring a European perspective to discussions on science, advocacy and policy issues discussed within the IAS Governing Council. Also, in view of my role within EACS and the Core Committee of the "Glasgow conference" (the International Congress on Drug Therapy in HIV Infection), I aim to help identify opportunities for involvement of the IAS in the two largest HIV conferences in Europe. Within the Glasgow conference, a session on issues regarding HIV in resource-limited settings has now become a well-established part of the programme, and the IAS is largely responsible for putting this session together. Of note, the IAS President is always invited to be a member of the Core Committee of the conference. Much of this involvement is owed to Professor Ian Weller, Conference Chairman and former member of the IAS Governing Council.

WITH RESPECT TO the relationship between EACS and the IAS, this is something I see growing naturally and based on getting to know each other's organizations. We have started, for instance, offering attendance at each other's conferences at no or limited cost. At the upcoming EACS conference in Cologne, Germany, this November, EACS has asked the IAS to jointly put together a session on harm reduction strategies (including opioid substitution therapy), designed to advocate for the implementation of such strategies in Eastern Europe. In a modest way, EACS hopes to contribute to the IAS's advocacy on this topic. Hopefully, it will also help to pave the way to next year's International AIDS Conference in Vienna where issues such as these will be high on the agenda. EACS was invited by the IAS to be a regional organizing partner, helping to shape the Vienna conference.

Q: Which of the IAS policy and advocacy priorities are most relevant for your region?

I FIND IT hard to choose between the priorities. All of them seem relevant, particularly when thinking of the Eastern and Southeastern European regions. To give some examples, there is a clear need for more education and training of health care workers in these parts of the region, and a variety of initiatives in Europe, including some supported by EACS, exist. Health systems strengthening, including better integration and coordination of HIV and TB services, is also extremely relevant to the European region, again particularly for Eastern Europe where care for each of these infections often is dealt with in isolation and without coordination. Advocacy for evidence-based intervention also is very relevant, and the planned session on harm reduction strategies at the EACS conference mentioned above serves as an excellent example.

Q: What can the IAS do to better work with the regions?

I THINK FURTHER cross-talk between the IAS and regional organizations in order to identify concrete areas for further mutually beneficial collaboration would be my personal recipe.

Q: Why would you advise someone to become a member of the IAS?

SIMPLY BECAUSE IT is a great experience to get to know and learn from so many people from all parts of the world, who each in their own way and by virtue of their specific expertise, share a passion to be involved with HIV.

E-mentoring for Abstract Authors Shows Promise

DURING THE ABSTRACT submission period for IAS 2009, 43 volunteer researchers provided feedback and support to less-experienced researchers and those from low- and middle-income countries who requested e-mentoring to help develop their abstracts for submission. Of the 84 mentored abstracts submitted, 46 were accepted through the peer-review process, a 55% success rate.

AT AN EVENT at IAS 2009, Governing Council member Prof. Sharon Walmsley of Toronto General Hospital thanked the mentors for helping to develop the next generation of AIDS researchers, particularly those from low- and middle-income countries. For the first time, she also met Dr. Diego Cecchini of Cosme Argerich Hospital in Buenos Aires, Argentina. Dr. Diego is an IAS member who Prof. Walmsley mentored remotely from Canada. "This is the reality of professional learning today. We meet once a year in person, then we stay in touch and support each other online on an ongoing basis," remarked Prof. Walmsley.

ONLINE ABSTRACT MENTORING is offered at no cost for IAS-organized conferences (November–February). With the design of a simple template for mentor feedback, the IAS has advanced the field of e-learning for scientific writing, and helped those participating to learn through practice, rather than through traditional writing workshops. Authors learn how to complete the various sections of an abstract, gaining comfort with a crucial scientific literacy practice through the support of their more-experienced peers.

"AS AN ADULT educator, I was keen to ensure the mentoring would provide real-time support to improve the scientific writing," explained project leader Gurmit Singh. "That's why the IAS tied the learning to a practical, real-life activity that is necessary for professional success, rather than developing a stand-alone workshop. Learning that doesn't lead to doing is no better than not learning at all."

MENTORS REPORTED THAT they appreciated the simple feedback form that ensured their comments were streamlined and consistent with other mentors. The abstract authors noted that they valued the rapid two-week turnaround and the constructive feedback provided by the mentors. Data from the monitoring and evaluation of the project over the last three conferences organized by the IAS found the authors who received e-mentoring were more motivated to improve and submit their abstracts, increasing the quality of research presented from previously underrepresented regions. For IAS 2009, the abstract success rate for low- and middle-income country abstract authors who received e-mentoring was 66%, as compared to a success rate of 50% for abstract authors from the same category who did not receive mentoring.

EMILY BLITZ, SENIOR Manager, Conference Programme, oversaw the first push into e-mentoring as the conferences integrated capacity building into their key activities. She noted, "For its part, the IAS is addressing the growing need for education by developing its professional development programme in a more scaleable and sustainable manner, exploring Internet-based options and other new learning technologies to broaden the reach of our efforts."

Mentoring: A Proven Strategy for Professional Development

IAS MEMBERS HAVE an important role to play in the scale-up of e-mentoring. The Internet enables experienced members to easily support and develop the skills of their less-experienced peers by building deep mentoring relationships online and over time. Not only will the efforts embolden colleagues who are just starting their careers, but they will also help them become more comfortable with e-learning and social networking. The IAS e-mentoring combines the speed of the Internet with the benefits of peer-to-peer learning through knowledge sharing, probing, enquiry and collaboration.

IN CAPE TOWN, the IAS held an outreach event with 20 mentors and other interested scientists to explore the possibility of developing a community-driven IAS mentors network to support research capacity building. "We have a solid baseline to build on with e-mentoring for abstract writing," remarked Singh. "As mentors, we can support young colleagues and develop our collective global research capacity."

IF YOU ARE interested in becoming an online abstract mentor, send an email to mentor@aids2010.org to sign up today!

Supporting early-career researchers in publishing research for conferences & journals

How can you benefit from mentoring?

Mentors are experienced researchers who provide advice on:

- Scientific writing & publishing
- Research methods & analysis
- Writing style
- Targeting tracks & categories

To improve your chances of success, visit:
www.iasociety.org/abstractmentor.aspx

International AIDS Society
Stronger Together

Mother from Kpobiman community near Accra, Ghana, breastfeeding her baby. Photo: UNAIDS/L. Taylor

Setting a Research Agenda for Women and Children: an IAS-ILF Initiative

By Shirin Heidari and Rodney Kort

THE INDUSTRY LIAISON Forum (ILF) is an IAS initiative aimed at promoting the scientific, intellectual and financial commitments of pharmaceutical and diagnostic companies to advance HIV research in resource-limited settings. One of the IAS-ILF's objectives for 2009–2011 is to increase the HIV clinical research projects in resource-limited settings that address the needs of women and children.

THE IAS RECOGNIZES that the success of treatment scale-up efforts in the past decade has also drawn attention to a number of outstanding knowledge gaps related to clinical management and antiretroviral therapy (ART) delivery for women and children. These knowledge gaps include the long-term effects of in utero antiretroviral (ARV) exposure on paediatric physical and cognitive development, ARV interactions with other infections, drugs and conditions, such as malnutrition, and the impact of ARV prophylaxis on maternal HIV treatment options.

EARLIER THIS YEAR, the IAS-ILF, guided by an expert reference group, conducted a mapping of clinical and operations research for women and children. The mapping exercise was informed by desk research, which included an environmental scan comprised of key informant interviews and a review of scientific and non–peer-reviewed literature.

DRAFT RECOMMENDATIONS FROM the expert reference group were reviewed and prioritized at a multi-stakeholder consultation held in July in Cape Town. Consultation participants included experts from civil society, research and donor communities, UN agencies and the pharmaceutical industry.

FINAL RECOMMENDATIONS BASED on the consultation will be categorized in three broad research areas: paediatric clinical research, clinical research addressing women's treatment issues and operations research related to ART programme delivery to women.

THE IAS-ILF PROJECT group is closely coordinating its work with a UNICEF-led initiative (with the involvement of the Elizabeth Glaser Pediatric AIDS Foundation, the U.S. National Institutes of Health, and other UN and U.S. agencies) on developing a research agenda in a fourth area: operations/implementation research related to preventing vertical transmission, including paediatric treatment and care.

THE FINAL RECOMMENDATIONS will be included in a statement to be released later this year.

A WEBCAST OF the IAS-ILF consultation, as well as the draft environmental scan, a summary report and other project documents, are available at www.iasociety.org\ILF.aspx. For additional details, contact Shirin Heidari, Senior Manager, Programmes and Initiatives, at ilf@iasociety.org.

Clinical News

By Shirin Heidari

Sex Differences in the Immune Response to HIV-1

THERE ARE BIOLOGICAL differences between men and women that result in differences in HIV disease progression. Data show that women have lower HIV-1 viral loads early in the infection, but for a given viral load women progress faster to AIDS than men. Little is known about the underlying factors that cause these clinical differences.

IN A RECENT study published in *Nature Medicine*, investigators sought to shed light on some of these factors by looking at the differences in immune activation in men and women. Dendritic cells are immune cells responsible for presenting antigens to other cells in the immune system. Plasmacytoid dendritic cells (pDCs), present in blood or in peripheral lymphoid organ, constitute a small fraction of the dendritic cells. The pDCs have shown to play an important role in the HIV-1 immune activation in humans and the investigators examined the response of pDCs to HIV-1 in men and women.

THE PDCS EXPRESS molecules known as Toll-like Receptors (TLR) 7 and 9 on their surfaces, which enables them to recognize viral and bacterial genetic material. TLR7 have been shown to recognize the single-stranded RNA of HIV-1. Following HIV-1 stimulation of TLR7, the pDCs are able to produce large amounts of Interferon (IFN) α and β with antiviral qualities.

IN THIS STUDY, investigators isolated pDCs from women and men and stimulated them through their TLR7 or TLR9 with ligands derived from HIV-1. Following the stimulations, researchers measured and analyzed production of various cytokines.

OVERALL, FOLLOWING STIMULATION with HIV-1–derived TLR ligands, a larger percentage of pDCs derived from women expressed IFNα as compared to pDCs derived from men. Researchers did not observe any differences in cytokine production between pDCs from men and women following stimulation with HIV-1–derived ligands specific for TLR9. However, when stimulated with HIV-1–derived ligands specific for TLR7, a substantially higher percentage of pDCs from women produced IFNα as compared to pDCs derived from men.

IFNA IS AN important cytokine in activating the body's antiviral defence system, and leads to activation of CD8+ T cells. Increased IFNα production may lead to stronger secondary activation of CD8+ T cells. In HIV-1–infected patients, high levels of circulating IFNα in the blood has been associated with HIV-1 clinical progression.

FOLLOWING THE IN VITRO observation that there are sex differences with regard to immune activation, the investigators assumed that the level of immune activation in HIV-1–infected patients would therefore be higher in women than in men.

IN ORDER TO test this hypothesis, investigators recruited 109 treatment-naïve, HIV-infected women and 514 treatment-naïve, HIV-infected men from the AIDS Clinical Trials Group (ACTG) 384 study. In this clinical trial, women have shown to have higher CD4 counts and lower viral load before the initiation of treatment. The study shows, in line with previous reports, that the level of immune activation is strongly associated with viral load at baseline. However, after adjusting for baseline viral load, the degree of CD8+ T cell activation was considerably higher in treatment-naïve, HIV-1–infected women than men.

THE DATA SHOW that sex differences in TLR-mediated activation of pDCs may account for higher immune activation in women compared to men. These results suggest a mechanism for why women may progress faster to AIDS than men for the same HIV-1 viral load.

BETTER UNDERSTANDING OF underlying mechanism of immune activation and disease progression can lead to innovative approaches to modulate these pathways in order to circumvent the HIV-1–associated pathology.

Reference
Meier A et al. Sex differences in the Toll-like receptor-mediated response of plasmacytoid dendritic cells to HIV-1. *Nature Medicine*, 2009, 15:955–959.

ICAAP Calls for Stronger Commitment to Universal Access

The 9th International Congress on AIDS in Asia and the Pacific (ICAAP) gathered nearly 4,000 people in Bali, Indonesia, from 9–13 August under the theme *Empowering People, Strengthening Networks.*

The conference aimed to support the creation of a dynamic, HIV-focused community with empowered people in the Asia and Pacific region.

ORGANIZERS AND DELEGATES also called for a strengthened commitment to achieving universal access to HIV treatment and providing prevention, care, support and treatment for those who need it most.

ACCORDING TO THE Independent Commission on AIDS in Asia (2008), AIDS remains the most likely cause of death and loss of work days among people ages 15 to 44. The estimated number of people living with HIV in Asia in 2007 was five million, with an equal number of new infections and deaths from AIDS-related illnesses of 380,000 that year. In Oceania, an estimated 740,000 people were living with HIV in 2007, of which 13,000 were new infections.

CONVENED BY THE AIDS Society of Asia and the Pacific (ASAP), ICAAP is a biennial gathering for the release and discussion of scientific, programmatic and policy developments in the global response to HIV/AIDS. ICAAP was opened by co-chairs Prof. Myung-Hwan Cho, ASAP President, and Prof. Dr. Zubairi Djoerban of the Indonesian AIDS Society, with Indonesian President Susilo Bambang Yudhoyono delivering the opening keynote speech. In his message, Prof. Myung said "Indonesia has been given the opportunity to take bold and innovative steps in support of the regional response to HIV & AIDS. Countries of Asia and other regions will be waiting to see Indonesia take the lead."

INDONESIAN FIRST LADY and AIDS Ambassador, Hj. Ani Bambang Yudhoyono, and other AIDS Ambassadors met at a special pre-conference meeting to urge nations in the region to work towards implementing the Declaration of Commitment adopted at the UN General Assembly Special Session on AIDS in 2001 and the Political Declaration of 2006, despite the pressures of the global economic crisis.

The IAS at ICAAP

IN ADDITION TO serving on the conference's International Steering Committee and providing financial support to the conference organizer, the IAS convened a special session highlighting recent scientific findings from the 5th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2009). Governing Council members Dennis Altman (Australia), Aikichi Iwamoto (Japan) and Praphan Phanuphak (Thailand) participated as presenters.

IN COLLABORATION WITH ASAP, the IAS also held a symposium entitled *HIV and National Borders: Building Research/Evidence on Mobility, Migration and HIV*. The session examined relevant research and legal issues faced by migrants within the Asia and Pacific region, featuring presentations by UNAIDS, the International Organization on Migration, and Coordination of Action Research on AIDS and Mobility (CARAM) Asia, as well as a presentation on HIV-specific entry and residence restrictions in South Korea. Video of the session is available at: *http://www.youtube.com/watch?v=C6f4ngoXDBU*.

FOR MORE INFORMATION on the 9th ICAAP, visit *www.icaap9.org*. For more information on role of the IAS at ICAAP, contact Bernard Kadasia, IAS Senior Manger for Regional Partnerships: bernard.kadasia@iasociety.org.

The 10th ICAAP will be held in Busan, Korea, in 2011.

Indonesian President Susilo Bambang Yudhoyono opens the 9th ICAAP.

In this Edition:

Key Findings from IAS 2009 | New on the IAS Website | 2010 IAS Governing Council Elections | Mats Ahnlund Named Deputy Executive Director | AIDS 2010 Pre-Conference Workshop | Rome to Host IAS 2011 | A Conversation with Robin Gorna | Global Funding of the AIDS Response | Health Systems Strengthening at IAS 2009 | Operations Research Track at IAS 2009 | The IAS Talks with Peter Reiss | E-mentoring for Abstract Authors | IAS-ILF Initiative on Women and Children | Clinical News | Report from 9th ICAAP

Highlights from IAS 2009

IAS President Dr. Julio Montaner, Dr. Linnet N. Masese, winner of the Young Investigator Prize: Women, Girls and HIV Award, and Dr. Catherine Hankins of UNAIDS.
Photo: IAS/Simon Deiner/SDR Photo

Satellite session on HIV/TB research.
Photo: IAS/Simon Deiner/SDR Photo

Graça Machel addresses closing session.
Photo: IAS/Simon Deiner/SDR Photo

Treatment Action Campaign march.
Photo: IAS/Simon Deiner/SDR Photo

The IAS invites you to visit our website at *www.iasociety.org* or get in touch with us at: International AIDS Society HQ | P.O. Box 28, CH - 1216 Cointrin, Geneva, Switzerland | Phone: +41-(0)22-7100 800 | Fax: +41-(0)22-7100 899 | Our email address is *info@iasociety.org* | We are looking forward to hearing from you.

ISBN number for November newsletter is 978-92-95069-10-7 | Newsletter design: www.sandstromdesign.se