

# vector

June 2008 – issue 7

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**Vector is the magazine of the AMSA Global Health Network**

**Editors:** Nicola Sandler  
**Layout:** Tim Fazio  
Cara Fox

**Publicity Officer:**  
Nadine Ata

Send your letters, articles, photos and feedback to [vectormag@gmail.com](mailto:vectormag@gmail.com)

## a message from the editors...

For our last edition as vector editors, we wanted a theme that made an impact – a final message to impart before we pass along the torch. We received so many great articles, with so many experiences and thoughts that were shared by our fellow students, and reading these one clear theme sprung to mind; connections.

In this issue: we hear from students who have had the opportunity to connect with others from around the world who share a similar passion; we learn about the impact that the experience of going to a developing country and connecting with people there can have on a student's perception of Health and Medicine; and we discover the effect that climate change has on global health, illustrating the necessity for health professionals to connect with people from other sectors.

We all come from different backgrounds, different states, and different schools, but we are connected through medicine, and it is important that we not only maintain this connection, but extend it to health in the broader context; global health. We hope that vector magazine continues to encourage you to make these connections, and pursue your own goals in global health.

Cheers one last time,

Nic and Cara



Congratulations to the new Vector Editor and Layout Designer, who will carry Vector forth into July 2009 - Nelu Jayawardena (Editor) and Leanna Hoang (Layout Designer)"



**AMSA GHN**

Australian Medical Students Association  
Global Health Network

## a new perspective

It's a sparkling new operating theatre in a recently renovated state of the art hospital. An LCD monitor lines the wall. It shows every miniscule detail of the colon. Row after row the sterilized scalpels, sutures, specimens to be sent to pathology for further evaluation are lined up meticulously. The surgeon sings, the patient rests, an hour later the room is re furnished ready for the next case...

It looks like something dodgy out of a movie. Corroded metal benches, old blood stains on the floor, a flickering light. Blood from a long incision covers the ground. The surgeon continues with deep concentration as he reaches for the newborn. Another achievement. The placenta is thrown in the bin. Twenty minutes later a new sheet of butcher's paper is laid down ready for the next patient...

One really needs to see it to believe it.

Undertaking the Jamkhed Public Health course in India and my advanced medical science (AMS) research project in Sri Lanka were the best things I ever did. Forget rats in labs, forget labouring over statistics, and forget technology. Hours of listening to lectures and



writing essays on poverty, the significance of sanitation, fresh water, vaccinations, and education for new mothers, all came to life...

No longer was medicine about the hunky plastic surgeon removing a BCC, it was about a lady who was once an untouchable delivering 800 babies in a village without a single death.

Sending second time mothers to the Park Hyatt after delivery is a lovely gesture, but what's heart warming is when the public health midwives in Sri Lanka work endlessly with unbelievably basic re-



sources to educate and care for every single new mother; to the point that it's maternal and child mortality rates are almost in par with the western world.

We hear of work cover, social support, district nursing, occupational therapy...you name it. In a village in India we hear of a 16 year old girl who contracted HIV from her 40 year old husband who she was forced to marry, being disowned by her own and her husband's family after he passed away a few years later. Soon after, her son died while she had to leave him a cow shed to go and work to make



money to feed him. As the exquisitely stunning young lady told us her story, I still recall the silence and welling tears in that room. We were so sad for her, but what's horrifying is that she must be one of hundreds, thousands, millions who are faced with the harsh reality of health issues.

Living in a first world country with relatively sufficient health setting, the comfort of the hospital, the law, the education and the facilities, medicine is a challenge, but we have the ways and means to tackle it. Finding yourself in a small village in a third world country puts a whole new spin on the concept of medicine. No longer are you dealing with the patient in front of you, but a whole community. You can read articles, you can watch documentaries, you can do a degree, but going to these places in person gives you experience that all the reading in the world will never convey, and burning desire to just keep going back.

### *Nelu Jayawardena*

Participant of the 2006 Jamkhed program, completed AMS research project regarding the Public Health Midwives in Sri Lanka in 2006-2007

# the IPPNW world congress experience

Lauren Finlay and Marcus Yip

Nuclear war is not something you hear about often. In a country with no apparent nuclear threat, it is easy to ignore the dangers associated with nuclear war.

“A nuclear disaster will not hit at the speed of a glacier melting. It will hit with a blast. It will not hit with the speed of the atmosphere warming but of a city burning. Clearly, the attention focused on nuclear weapons should be as prominent as that of global climate change.”

- California Governor Arnold Schwarzenegger, in prepared remarks to the Hoover Institution’s “Reykjavik II” conference, 26 Oct 2007.

## The congress

IPPNW, International Physicians for the Prevention of Nuclear War, winner of the 1985 Nobel Peace Prize, held their 18th World Congress in Delhi, India in March this year. It was attended by over 600 doctors and students, the largest delegation yet. This world congress had special meaning being held in India given that India and Pakistan have about 50 nuclear weapons each and have recently undergone nuclear tests.

Thirteen Australians were there representing Medical Association for the Prevention of

## the facts

- There are over 26,000 nuclear weapons in the world, each of them between 7 and 300 times more powerful than the A bomb used in Hiroshima in 1945.
- There are 5 nuclear weapons states, United States of America (10,000 nuclear weapons), Russia (15,000), United Kingdom (200), France (350) and China (130), all which had nuclear weapons before signing the Non-Proliferation Treaty (NPT).
- India, Pakistan and Israel also have nuclear weapons, 50, 50 and 75-200 respectively, and are yet to sign the NPT. Iran and North Korea deny possession of nuclear weapons.
- The United States alone spends enough on its nuclear weapons (more than \$40 billion a year) to be able to end world poverty by 2030.
- The Non-Proliferation Treaty, formed from 1967-70, prevents the proliferation of nuclear weapons and encourages responsible use of nuclear technology. It calls for disarmament of nuclear weapons, as well as other weapons, and has so far been signed by 187 countries.
- iCAN, the international campaign for the abolition on nuclear weapons, was launched by Australia in 2007 and is an official campaign of IPPNW.
- iCAN demands “an end to nuclear weapons through a nuclear weapons convention, which will make nuclear weapons illegal, banning their development, possession, use and threat of use”.
- In a speech to the Global Foundation in March 2007, Kevin Rudd stated he wanted to “re-establish the Canberra commission on the Elimination of Nuclear Weapons” to “help rebuild the collapsing consensus around the Nuclear Non-Proliferation Treaty”.

War (MAPW), the Australian affiliate of IPPNW. Three students and an intern from Flinders University attended, enhancing the reputation of Flinders students in extra-curricular organisations. IPPNW has three areas of interest – nuclear arms, small arms prevention and medical student development.

The world congress included a 2 day student conference and 3 day main congress. The student conference had two aims: to educate those there about the issues important to IPPNW and to allow students from around the world to show what they have been doing at home to raise awareness of these issues. It was an important, personal realisation to see how nuclear weapons, the threat of nuclear war and small arms are affecting students back home.

The conference was opened traditionally, by three students from Japan presenting on the ongoing effects of the Hiroshima and Nagasaki atomic bombs. The student conference ended with a candlelight peace march.

The topics discussed in the main congress were so varied with some

amazing speakers and stimulating workshops. There were plenary sessions on iCAN, small arms violence, globalisation and energy security.

The issue of nuclear energy was discussed during the energy security plenary and followed by a speech from a worker from the Jadugoda mines, a uranium mine in India. His personal account of the health and psychological problems associated with uranium mining brought home the fact that so many innocent people are affected by political power struggles, with no consideration for the individuals.

People living around the uranium mines are exposed to 20x the normal limit of radiation. Women in the area are becoming infertile, leading them to be shunned by the community. There are increased numbers of



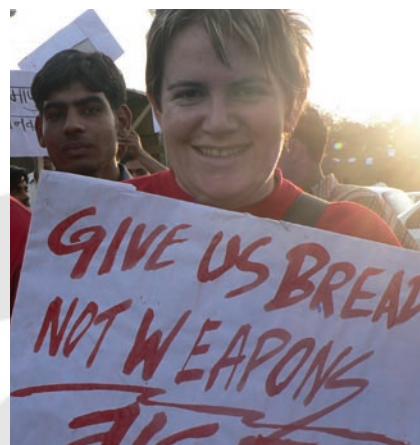
congenital deformities. Those living around the mines, not necessarily working in the mines, have an increased risk of cancer and a decreased life expectancy.

This doesn't just affect people living in countries with nuclear weapons. Adelaide is only 550km away from Olympic Dam, which is set to expand its production from 3,670 tonnes of uranium a year to 15,000 tonnes, making it the biggest uranium mine in the world.

Although Australia has good safety measures, we're not completely safe. In 2004, 150 workers were exposed to drinking water containing uranium levels 400 times greater than the maximum Australian safety standard.

### ***The Life Changing Experience***

Living in the bottom end of the world, it is too easy to ignore the problems associated with nuclear



weapons and war, even if we are the biggest exporters of uranium. This all goes away once you meet other students using the exact same books as you, but reading them in a country of political unrest and war.

The fact is globalisation has happened and what happens in one country, or one region of the world, no longer only affects that country or region. We can't continue to believe that each country's actions are completely independent from each other. As different body systems function symbiotically as one person, our world needs us to think and act as one planet.

Not only does Australia, by mining and exporting uranium, fuel international nuclear arms development, it also has a directly devastating impact in our own backyard – Olympic Dam uses 35



### ***For more information visit...***

[www.ippnw.org](http://www.ippnw.org)

[www.mapw.org.au](http://www.mapw.org.au)

[www.icanw.org](http://www.icanw.org)

[nuclearfreeaustralia.com.au/articles/4-problems-with-the-nuclear-fuel-cycle/i-uranium-mining](http://nuclearfreeaustralia.com.au/articles/4-problems-with-the-nuclear-fuel-cycle/i-uranium-mining)

million litres of water a day FOR FREE.

Before going to the World Congress, I had NO idea what IPPNW was all about. I knew it had something to do with nuclear weapons, but even then, I didn't know about nuclear weapons. When I got to India I discovered, basically, IPPNW was about world peace.

I'm all for world peace, but I found it hard to believe, in the world we live in today, that it will happen. That was until I saw the 70 students who attended the pre-conference peace march, various doctors and Indian citizens all together "wanting bread, not weapons". These sights and experiences made me realise that the first, and possibly the most important step for change, is to truly believe that it is possible.

This provides the motivation needed to drive the work that induces change. These were citizens of a country with nuclear weapons, calling for disarmament. It was at that moment I believed world peace WILL happen, and like all the other doctors, students and citizens there, I will try to do my bit to make sure it does. Public education and support is the catalyst for change, and it's something that anyone and everyone can be involved in, no matter how big or small.

## Climate Change and its Impact on Global Health

Jocelyn Chan

"The WHO has recently estimated that 6-7% of malaria in some parts of the world is attributable to the climate change that has occurred during the past quarter of a century."

Climate change has been the topical issue of late. The Age listed it as the top concern for 39% of the population. Yet, now in my third year, this was the first time that I'd come across the issue of climate change impacting on health within the context of my studies.

We all know the basics about global warming, whether it be from the media or high school science. The question is, how exactly does this all impact on our chosen profession?

The IPCC, regarded as an authoritative voice in the climate change world, has been instrumental in creating scientific consensus with regards to climate change. The consensus seems to be that although there may be some reduction in cold-related mortality, the balance of impacts will be overwhelmingly negative.

With reference to Australia specifically, the chief concerns expressed in the IPCC report were; an increase in heat-wave related deaths, drowning from floods, diarrhoeal disease in indigenous communities, potential change in the geographic distribution of dengue and malaria, likely increase in environmental refugees from Pacific islands.

These are not merely dire warnings for the future. Recent years have already provided examples for what is likely to come; the European heatwave of 2003 caused more than 14 800 deaths in France alone. And hurricanes Katrina and Rita in the US lead to the contamination of water supplies with faecal bacteria causing many cases of diarrhoeal disease and death. These examples remind us that even wealthy countries remain vulnerable to climate disasters.

Here in Australia, we have had firsthand experience with how extreme weather can influence human nutrition. Just last year, cyclone Larry devastated Australia's banana industry. However, Australia is not likely to suffer from problems relating to food shortages. The real problems are focussed on countries most vulnerable to food insecurity, notably Africa, which may lose substantial agricultural land. (IPCC)

There are also health benefits of moving towards low carbon living. Doctors writing on the subject have envisaged reduction in energy use as a strong incentive for healthy transport (walking and cycling).

For more information or to get involved, try –

<http://www.who.int/topics/climate/en/>

<http://www.ipcc.ch/>

<http://union.unimelb.edu.au/environment/>

You may email me, but this is not my area of expertise: [y.chan7@ugrad.unimelb.edu.au](mailto:y.chan7@ugrad.unimelb.edu.au)

## IFMSA march meeting

Anneliese Willems

From the 1st to the 7th March, 15 Australian medical students, myself included, had the opportunity to attend the 57th March General Assembly for the International Federation of Medical Student Associations (IFMSA) in Monterrey, Mexico. Our group, with representatives from Monash, Flinders, University of NSW, Griffith, Sydney and Queensland Universities had the opportunity to meet with 600 delegates from over 70 different countries in amidst an action packed academic program and, of course, exciting social events.

The academic program was divided into six different standing committees, consisting of Public Health, Reproductive Health and AIDS, Medical Education, Professional Exchange, Research Exchange and Human Rights and Peace, of which delegates would select one and attend each morning for the duration of the conference. The Standing Committee on Public Health (SCOPH), the committee I attended, focused on topics including diabetes, tobacco related disease, women's health, psychiatric disease in children living in prisons, and medical student health. In the afternoons, I had the

opportunity to be involved with a 'Small Working Group' (SWG), a subdivision of SCOPH. My group focused on Tuberculosis – looking at raising awareness in the general population and educating fellow medical students regarding the disease on 'World TB Day'.

A 'Plenary' session was held every evening, in which, a little like a UN sitting, medical students (two from each country in attendance) gathered to discuss, debate and make decisions on issues affecting medical students worldwide. Issues discussed in this General Assembly included medical student associations' relationships with pharmaceutical companies, current medical education systems being introduced to European countries and the customary intra-organisational discussion pertaining to candidature for leadership, budgets and decisions regarding future Assemblies.

Following plenary sessions, the social program began (and what an excitement-filled program the week contained). In true Mexican style, the agenda included a Fiesta Latina, Lucha Libre (Mexican wrestling), Piñata festival, Caribbean party and, of course, the customary National Food and Drink party.

I would recommend the confer-

ence for students interested in global health or future medical leadership. The clear highlight of the conference for me was the opportunity to network with so many bright, enthusiastic, creative medical students, who each had developed different ideas and projects in their own countries – many of which could potentially be implemented in Australia.

## c'mon kevin, let's go to 0.7

In 2000 the world stood together and envisioned a future in which poverty would be eradicated. On that dawn of the new millennium, there was a renewed outpouring of humanity as collectively we pledged to "spare no effort to free our fellow men, women and children from the abject and dehumanising conditions of extreme poverty, to which more than a billion of them are currently subjected."

### **Global goals and targets**

Central to achieving this bold plan was the development and agreement by 191 countries of the Millennium Development Goals – 8 measurable targets that would see us move towards realizing a world without poverty by 2015 and true eradication by 2025. Ambitious yes, but unique in that the signatures of 191 countries including Australia's were affixed demonstrating a global commitment.



## Show me the money

In order to achieve the ambitious MDGs, the rich world would need to come to the party and fund them accordingly. How much would they cost? The work of economist Jeffrey Sachs showed that the MDGs could be realized at currently pledged levels of aid contributions. If all of the rich countries fulfilled their already pledged commitment to give 0.7% of Gross National Income (GNI), the MDGs could be fully funded. Sounds great – problem solved. Well, no. Unfortunately for the majority of the rich world (all but five countries), those “pledged commitments” have never been realized despite the fact that the pledge to go to 0.7% was first made in the 1970’s. In 2002, realising that the success of the MDGs turned on the funding levels, all of the same countries reaffirmed their commitments to meet the 0.7% GNI.

“Each economically advanced country will progressively increase its official development assistance to the developing countries and will exert its best efforts to reach a minimum net amount of 0.7 per cent of its gross national product ... by the middle of the Decade.”

Despite these pledges and re-affirmations, the rich world is dragging its feet on meeting this required 0.7% target. So, where does Australia stand in all of this?

### The Australian Experience

With the recent ascension of the

Rudd Labor government there has been a much greater focus placed on international development and Australia’s role as an active global citizen as well as a regional leader. A scan of Rudd’s speeches over the past year are littered with references to the MDGs, to Australia’s support in the fight against poverty, to addressing the significant challenges in our region and on and on. Despite this rhetoric and a welcomed pledge to increase its aid levels, the Government has only committed to a slow increase from 0.32% (the current level)

### millennium development goals

- [1] Eradicate extreme poverty and hunger
- [2] Achieve universal primary education
- [3] Promote gender equality and empower women
- [4] Reduce child mortality
- [5] Improve maternal health
- [6] Combat HIV/AIDS, malaria, and other diseases
- [7] Ensure environmental sustainability
- [8] Develop a global partnership for development – including through fairer trade, debt relief and better aid

to 0.5% by 2015/16. To put that in perspective, this would bring Australia back to the levels of the 1990’s; before the boom and the unprecedented growth that we have experienced. Compared to the other developed countries, Australia is 15th of 22 rich nations providing a lower percentage than such countries as Spain, Austria, Belgium and Denmark. And while many rich countries such as the UK, Finland and France have made commitments to meet the 0.7% commitment

by 2013, Australia’s promises lag far behind.

### C’mon Kevin, Let’s go to 0.7

Australia has a unique role to play in the regional context. We live as an island of affluence in a sea of relative poverty. The Pacific Islands, our closest neighbours are suffering under the weight of poverty. This poses not only a moral dilemma (what more could we do?), but also poses significant risks to our security and common prosperity – failed states make poor neighbours and the cost of intervening is high (just look at the Solomon Islands and East Timor).

Australians are givers. We can be proud that per capita we give more to charity than any other country. But what we are talking about is not millions, but billions; much needed money that will go into health, education and other development activities. Put into real terms, 0.7% represents just

70c for every \$100 of GNI. At the current levels of funding, Australia has a long way to go to reach the 0.7% target. If we don’t start acting soon, the goal posts will continue to move further and further away.

There is an opportunity here for Australia to match its rhetoric with action, to reverse the trend of the past and to finally set us on a path to fulfilling our commitments to the global community. It’s the least we can do to

give the Millennium Development Goals the best chance of succeeding and demonstrate to the billions living in abject poverty, that we "...will spare no effort ...".

**C'mon Kevin, Let's go to 0.7!**

The Kevin 0.7 Campaign is an initiative of globalHOME.

Find out more about the Kevin 0.7 Campaign at <http://www.kevinpoint7.com>

globalHOME is the global health group of the University of Sydney Medical program – <http://globalhome.medsoc.usyd.edu.au>

## **global health news review**

### **Climate Change Brings New Disease Threats**

The World Health Organization's (WHO) latest report stated that climate change would bring severe risks to developing countries such as Indonesia and have negative implications for achieving the health-related Millennium Development Goals (MDG) and for health equity. For further details, visit:

<http://www.irinnews.org/Report.aspx?ReportId=78229>

### **AFGHANISTAN: Can condoms fulfil multiple expectations?**

Millions of condoms will be distributed across Afghanistan in 2008 in a new drive to prevent sexually transmitted diseases, reduce maternal mortality and improve family planning, aid agencies and the Ministry of Public Health (MoPH) said. Full article:

<http://www.irinnews.org/Report.aspx?ReportId=78063>

### **Study Finds Africans Get Substandard Malaria Drugs**

Many Africans are getting substandard malaria drugs, with more than a third of the pills tested failing quality tests, according to a recent report. More information can be found at:

<http://www.reuters.com/article/healthNews/idUSN0651796020080507>

### **Malaria on the decline due to concerted awareness efforts**

Malaria, one of the world's deadliest diseases, appears to be on the retreat in Cambodia as the number of infections and deaths due to the disease has decreased in recent years thanks to better health education and concerted efforts at mosquito net distribution and village-level treatment, officials said. Full report at:

<http://www.irinnews.org/Report.aspx?ReportId=77967>

### **Monitoring AIDS treatment by physical symptoms is effective**

When millions of HIV-infected people in poor countries began receiving advanced drug therapies, critics worried that patient care would suffer because few high-tech laboratories were available to guide treatments. However, a recent study indicates that when clinicians use simple physical signs of deteriorating health, these doctors can provide therapies almost as effective as those relying on the most advanced laboratory analysis. Full article:

<http://www.who.int/mediacentre/news/releases/2008/pr12/en/index.html>