Health Action International (HAI) was formally founded in Geneva in 1981 and coordinated from Penang by Action for Rational Use of Drugs in Asia (ARDA). In 1995 Health Action International Asia Pacific (HAI AP) was formed as a collaborative network in the Asia Pacific Region to increase access to essential medicines and improve their rational use through research excellence and evidence-based advocacy. HAI AP is committed to strive for health for all now. HAI AP News is the organ of Health Action International – Asia Pacific and presents the happenings in the regional campaigns for more rational and fairer health policies and carries material in support of participants’ activities.

In this issue

<table>
<thead>
<tr>
<th>In this issue</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remembering Bhopal</td>
<td>1</td>
</tr>
<tr>
<td>Vale David Sanders</td>
<td>2</td>
</tr>
<tr>
<td>AMR Plan Implementation: New Zealand, Australia,</td>
<td>2/3</td>
</tr>
<tr>
<td>Antibiotic Awareness Week: Annamalai University,</td>
<td>5</td>
</tr>
<tr>
<td>Learning about food animals</td>
<td>5</td>
</tr>
<tr>
<td>RCEP Update</td>
<td>5</td>
</tr>
<tr>
<td>Pharmaceutical marketing – new publication</td>
<td>7</td>
</tr>
<tr>
<td>Misleading marketing, Regulating promotion in Australia</td>
<td>7</td>
</tr>
<tr>
<td>Measles in Samoa</td>
<td>9</td>
</tr>
<tr>
<td>Feature: Iran almost 50 years on – the miracle of Primary Health Care</td>
<td>11</td>
</tr>
</tbody>
</table>

Remembering the Bhopal Tragedy

December 2/3, 2019 marks the 35th anniversary of the Bhopal tragedy where 15000 people lost their lives and at least 500,000 people were maimed or seriously affected by a gas leak from the Union Carbide Pesticide plant in Bhopal, Madhya Pradesh. Three-and-half decades on, survivors of the tragedy continue to suffer its ill-effects and are fighting a protracted legal battle for adequate compensation. We pay tribute to the victims’ organisations who have continued to struggle.

The Remember Bhopal Museum has been set up in Bhopal by some of these groups, documenting the tragedy in the voices of the victims, the doctors and the community. Surviving families have donated articles for the museum: some belongings of the loved ones, a small baby dress, little shoes, a bridal dress of another loved one who did not survive. Newspaper cuttings of that time, photos of the scene and numerous reports have been collected. The creation of the museum is a labour of love - so that people don’t forget the biggest industrial disaster in history: the gas leak, denial of antidote, toxic effluents in soil and water, compensation concerns, second generation tragedy of continued birth defects.

Hazardous pesticides continue to be manufactured and used in food crops. The health hazards continue to be denied. It is not just pesticides, but also herbicides (Monsanto’s glyphosate) and fungicides.

In this issue we feature the story by Dr Mohammad Ali Barzgar of Iran’s miracle Primary Health Care program almost 50 years on - and the Award presented to the initial community health workers - page 11.

Antimicrobial Resistance Plans have been prepared by most of the countries in our region and it is now time to look at the impacts of the implementation of those plans. New Zealand and Australia have both documented activities and published results of evaluation of those activities together with their plans for ongoing activities.

As 2019 ends we send greetings to all our HAIAP members and friends together with wishes for a safe and peaceful 2020.
We in HAI AP mourn the passing of David Sanders who died suddenly on August 31 2019. David influenced an extraordinary number of people’s lives through his work and activism.

David managed to bridge the often-divided worlds of academia and activism. He had a great intellect and used this to pursue research in the service of health justice. He always insisted on having the best evidence possible for improving health equity. Camila Giugliani of People’s Health Movement Brazil noted in her tribute that David was ‘an example of an activist who has had the courage to fight injustices, always, and of a professor who has made the best use of his knowledge and academic achievements to bring light to the struggle for health for all’.

David was a founding member of PHM at its creation in 2000 in Savar, Bangladesh and had been the co-chair of PHM from past six years. A pediatrician by qualification, David was very much interested in the issues of public health. He went on to head the School of Public Health at University of Western Cape in Capetown, South Africa from its inception in 1993 till 2009. He is the author of many peer reviewed articles and three books: The Struggle for Health; Questioning the Solution; and Fatal Indifference: The G8, Africa and Global Health.

AMR Plan Activities

New Zealand:

New Zealand is demonstrating impressive commitment to implementing their Plan and documenting activities and progress.

New Zealand’s Antimicrobial Resistance Action Plan was jointly developed by the Ministry of Health, Ministry for Primary Industries and representatives from across the human health, animal health and agriculture sectors and published in August 2017. The original Plan and the reports of activities are available on the Ministry of Health website.1 The Action Plan2 draws on the findings from the report Antimicrobial Resistance: New Zealand’s current situation and identified areas for action.

The Year One Progress Report3 published in September 2018 shows that the first year considered against the Action Plan had focused largely on establishing coordinating and governance functions and additional scoping where required. Activities were undertaken according to the strategies detailed against all the objectives and all are covered by the report. The activities have been undertaken under the leadership of the objective leads of the Ministry of Health and Ministry for Primary Industries. This work to establish robust governance processes and to align operational principles has been essential groundwork for implementing the Action Plan.

Infection prevention and control (IPC) was a major area of intervention and IPC guidelines were published in November 2018. The document includes a major focus on IPC of carbapenemase producing enterobacteriaceae.4

NZ sees the Action Plan as a living document. As a result of the additional scoping and updating, and in line with available resourcing and progress made, some activities have been consolidated or shifted to outlying years. Others have been shifted to ‘ongoing’ status as this more accurately reflects the nature of the subject matter or where external factors have an impact on the timeframes.

The Ministry of Health led NZ’s first Joint External Evaluation (JEE) of core capacities of the AMR Plan under the International Health Regulations (IHR) in 2018. The JEE included a technical area on antimicrobial resistance (AMR). A National Health Security Action Plan responding to the JEE findings is being developed currently.

The AMR Governance Group (co-chaired by the Ministries of Health and Primary Industries) and the Health AMR Coordination Group (HARC), which includes key stakeholders and partners from across the human health system, were convened to provide ongoing support for implementation of the Action Plan’s activities. The Terms of Reference for both groups were reviewed.

The Ministry of Health, Health Quality & Safety Commission (HQSC) and other key stakeholders worked together to produce AMR messaging in November 2018 to promote:

The HQSC led cross-agency work on a national antibiotic awareness school poster competition. Winning posters were used to promote both awareness weeks. An educational pack accompanied the poster competition which identified curriculum links and provided teaching resources and information about antibiotic resistance and hand hygiene in New Zealand.

The HARC members contributed to the Health and Disability Services Standards Review process as it relates to optimising the use of antimicrobials and infection, prevention and control.

In New Zealand tear off pads were also distributed to GPSs to give to patients to explain why they were not given a prescription for antibiotics.

---

Australia: Monitoring antimicrobial use in Aged Care facilities

Australia’s National AMR Plan identified Aged Care facilities as a major focus for intervention. The most recent survey of Aged Care facilities shows there is still plenty of room for improvement.

Summary: The annual Aged Care National Antimicrobial Prescribing Survey (NAPS) was put in place with the aim of identifying local and national prescribing issues that need attention and to guide antimicrobial stewardship goals. The Aged Care NAPS is coordinated by the National Centre for Antimicrobial Stewardship in partnership with the Guidance Group (Melbourne Health) and the VICNISS Coordinating Centre (Melbourne Health). It is supported by the Australian Commission on Safety and Quality in Health Care as part of the Antimicrobial Use and Resistance in Australia project.

- In the 2018 point prevalence survey, medication charts of over 20,000 residents were reviewed from 407 participating facilities across Australia.
- On the day of the survey, almost 10% of residents were prescribed an antimicrobial.
- Nearly two-thirds of recently prescribed antimicrobials were for residents who had no documented signs or symptoms of infection.
- Over a quarter of antimicrobials had been prescribed for longer than six months.
- Incomplete documentation was a prominent barrier to proper review of antimicrobial therapy, with the indication, review date or stop date not documented for many prescriptions.

Recommendations include using appropriate microbiological testing to guide prescribing, following national antimicrobial prescribing guidelines, documenting the indication for the antimicrobial, and its start, stop and review dates, and monitoring and re-evaluating long-term antimicrobial use.

Standards for antimicrobial stewardship

With the newly updated Aged Care Quality Standards, Australian aged-care homes are now required to demonstrate that they have infection-control practices in place, and ‘practices to promote appropriate antimicrobial prescribing and use to support optimal care’. It is hoped that more aged-care homes will incorporate antimicrobial stewardship into their quality

---

and safety framework, and actively engage in surveillance and other quality improvement activities.

Quality agencies have also been promoting the implementation of antimicrobial stewardship programs in aged-care homes through the Antimicrobial Stewardship Clinical Care Standard. This standard provides guidance on the quality of care that residents and families should expect to receive for an infection. It includes recommendations about antimicrobial use and treatment, such as the use of broad-spectrum antibiotics, and the review of treatment.

Conclusion

Improving the safety and quality of care in the aged-care sector is a national priority. It is important that the quality use of medicines is consistently promoted through existing and emerging quality improvement mechanisms.

By participating in the NAPS, each facility can generate customised reports and examine their local issues. These reports may serve as a basis for educating staff, residents and their families about antimicrobial use and can provide an incentive to make clinical policy and practice changes. They can be presented to accreditation organisations as evidence of quality improvement initiatives. It is anticipated that these approaches will yield better outcomes for residents.

Australia: Curbing inappropriate antimicrobial use in children

25 November 2019


Antibiotic use in Australia has been found to be highest in children in the 0–9 years age group as well as in adults in the over 65 years age group.

Australia is internationally unique in that it collects information about the prevalence and quality of antimicrobial use across acute care settings nationally, and has access to nationally aggregated data.

The National Antimicrobial Prescribing Survey (NAPS) is an online antimicrobial prescribing auditing program that has been available in Australia since 2013. Public reports on the nationally aggregated results of these audits have been published annually since 2014, but, until recently, no specific analysis of prescribing for children was included in these reports.

In a recent study, information was reviewed on antibiotic prescribing for children from Hospital NAPS audits undertaken across Australia from 2014 to 2017, which covered public and private, and major city, regional and remote hospitals.

How good is antibiotic prescribing for children in Australian hospitals?

Among over 6000 antibiotic prescriptions for children in 253 hospitals, almost 20% of prescriptions were assessed as inappropriate. Appropriateness assessments take into account a range of factors such as antimicrobial choice, timing of administration, dose, duration and others. More than half of surgical antimicrobial prophylaxis prescriptions were assessed as inappropriate. Risk factors for inappropriate prescribing included being admitted outside a specialist children’s hospital or being admitted in a rural or regional hospital.

An indication for antimicrobial use was documented in 79% (4903/6219) of prescriptions; the most frequent indications included empiric therapy for sepsis (586, 9.4% of prescriptions) and antifungal prophylaxis (571, 9.4% of prescriptions, mainly in immune-compromised children and neonates). The agents that were most commonly used for antifungal prophylaxis were oral nystatin, followed by trimethoprim-sulfamethoxazole and then the azole antifungal agents. These were generally used appropriately.

In contrast, prescriptions for surgical antimicrobial prophylaxis were assessed as appropriate in 41% of cases. Surgical prophylaxis prescriptions were assessed as inappropriate often because of incorrect duration of use (generally prolonged use). In 8% (38/459) of surgical prophylaxis prescriptions, the agent selected was assessed as inappropriate (in most cases, a broad-spectrum agent was selected when it was unnecessary).

For another common indication, community-acquired pneumonia, 25% of prescriptions were assessed as inappropriate, mainly because of inappropriate agent selection (19%; 73/378). Appropriateness also varied by antimicrobial class; for example, antiviral use was assessed as appropriate in over 95% of cases, whereas carbapenem use was assessed as appropriate in 60% of cases.

There was also less use of Therapeutic Guidelines: Antibiotic for children admitted to hospital compared with adults, perhaps reflecting a lack of specific information for children and newborns until an update in June 2019.

In primary care, audit tools to measure appropriateness do not exist. National data show a high proportion of antibiotic prescriptions for young children by global standards: in 2016–17, there were over 3 million antibiotic prescriptions for children (a per capita rate far higher than countries such as the Netherlands and Norway). The prescribing was highly variable. Children in the highest prescribing area received antibiotics 16.5 times more than those in the lowest prescribing area. A Victorian study conducted from 2010 to 2014 showed one in five individual children was prescribed an
antibiotic each year, and noted an inconsistency between prescribing practice and *Therapeutic Guidelines: Antibiotic* recommendations.

**Antimicrobial stewardship and meeting standards of care**

Antimicrobial stewardship (AMS) encompasses a range of strategies and programs that can improve prescribing and limit the spread of antibiotic resistance. Since 2013, all Australian hospitals have been required to meet AMS criteria within the National Safety and Quality Health Service Standards, which require services to provide access to guidelines and review prescribing practice in their facilities. An updated version of *Therapeutic Guidelines: Antibiotic* was published in June 2019, and included more detailed recommendations for antimicrobial use in children and newborns. Hospitals also have access to the Hospital and Surgical NAPS, which can help monitor and improve antimicrobial prescribing. Undertaking quality audits can enhance AMS activities.

There are currently no national standards that specifically include AMS in general practice. GPs must also pay to access *Therapeutic Guidelines*. The product information for antibiotics contained in *MIMS*, which is commonly used, may not be up-to-date.

We don't have much information about the quality of prescribing in general practice. At present, we don't have a nationally available audit tool to measure and improve prescribing for Australian children seen in primary care.

**Room for improvement**

The consequences of unnecessary medication use in children can be significant and clearly there is room to improve antibiotic care for children. Health care providers must act together with the community to better promote and support high quality antibiotic prescribing for children.


**Plan to restrict repeat prescriptions of four common antibiotics**

In Australia, prescribing is linked to the National Pharmaceutical Benefits Scheme software that generates the printed prescriptions provided to patients by their prescribers. Many prescriptions for antibiotics automatically specify availability of a repeat prescription - as well as the quantity for the specific treatment.

There is evidence that patients claim their repeats and save them for use in a new episode of illness which may or may not require that antibiotic.

In October the Pharmaceutical Benefits Advisory Council (PBAC) recommended banning subsidies for repeat scripts of cephalixin, roxithromycin, amoxicillin and amoxicillin-clavulanic acid. Under a new plan to tackle antibiotic resistance, repeats of the four common antibiotics would no longer be automatically included on the printed prescriptions to be funded via the PBS.

The Australian Medical Association (AMA) and Royal Australian College of General Practitioners (RACGP) backed the proposed restrictions.

The move was aimed at aligning public subsidies for antibiotics with recommended lengths of treatment as set out in *Therapeutic Guidelines* and ‘would support antimicrobial stewardship and quality use of medicine’, the committee said.

The Department of Health added that those four antibiotics were targeted because they accounted for the highest volume of dispensed repeats.

AMA president Dr Tony Bartone said the restrictions were necessary to stop patients ‘squirreling away their repeats and using them inappropriately at a later date’.

‘The Department of Health has very clear data on the number of repeats that are filled asynchronously,’ said Dr Bartone. ‘It’s a fairly significant proportion. A single script for antibiotics should reflect the recommended course length’ he said.

‘Doctors may issue their repeats just in case the patient is not better after the course. But at this point, it's probably prudent for the patient to be reviewed anyway. If patients are not recovering, maybe the presentation is actually viral or maybe a different intervention is needed.’

Associate Professor Mark Morgan, chair of the RACGP’s Expert Committee – Quality Care, pointed out that even some single packs of antibiotics contained more medication than the recommended course length.

‘I strongly think that pack sizes should match the recommended course length, but I’m not sure that’s necessarily always the case at the moment. Specified quantities could be reviewed.’

‘If the plan went ahead, there would be rare cases where patients required an extended course of antibiotics and would have to return to their GP for a second script, he added. But ‘any inconvenience would be outweighed by the overall benefits’, he said.


8 https://www.nps.org.au/australian-prescriber/articles/optimal-antimicrobial-duration-for-common-bacterial-infections
World Antibiotic Awareness Week – November 2019

Department of Pharmacy, Annamalai University, India

Professor Guru Mohanta

The Department of Pharmacy, Annamalai University, India, took the initiative to promote Appropriate Use of Antibiotics among the General Population as part of World Antibiotic Awareness Week 2019.

The members of the Student Chapter of the International Society of Pharmacoeconomics and Outcomes Research of the Department of Pharmacy Annamalai University visited the nearby Primary Health Centre, Kavarapattu, and spoke to the patients and their care takers on 19th November 2019. In an interactive session of more than one hour around 50 persons were addressed on the themes:

1) Do not use antibiotics without the prescription of a Certified Health Professional;
2) Need for completing the full course of antibiotic medication;
3) Never use left-over medications;
4) Use Antibiotics only when needed;
5) Storing medicines at home and disposing left over medicines.

As most of the patients were pregnant women, medicine use during pregnancy and lactation was also discussed. The patients were also educated on the need for maintaining personal hygiene and hand washing and were also told about the dangers of self-medication. The patients were provided with a friendly environment for clearing their various doubts by interaction with the pharmacy students.

The campaign was led by Professor Guru Prasad Mohanta, Head, Department of Pharmacy; Professor P. K. Manna; Professor C. K. Dhanapal and the ISPOR Student Chapter President, S. Subash. The campaign was well appreciated by the hospital authorities and the villagers as well.

What has been learned in food animals this past decade?

Antibiotic resistance in food animals has nearly tripled since 2000.

Source: Princeton University® October 9, 2019

Summary: Researchers report in the journal Science that the growing appetite for animal protein in low- to middle-income countries has resulted in a smorgasbord of antibiotic consumption for livestock that has nearly tripled the occurrence of antibiotic resistance in disease-causing bacteria between 2000 and 2018; and has nearly tripled the occurrence of antibiotic resistance in disease-causing bacteria that are easily transmitted from animals to humans. The researchers found that antibiotic resistance in livestock was most widespread in China and India, with Brazil and Kenya emerging as new hotspots.

Researchers from ETH Zurich, the Princeton Environmental Institute (PEI), and the Free University of Brussels gathered nearly 1,000 publications and unpublished veterinary reports from around the world to create a map of antimicrobial resistance in low- to middle-income countries. They focused on the bacteria Escherichia coli, Campylobacter, Salmonella, and Staphylococcus aureus, all of which cause serious disease in animals and humans.

Between 2000 and 2018, the proportion of antibiotics showing rates of resistance above 50% in developing countries increased in chickens from 0.15 to 0.41 and in pigs from 0.13 to 0.34, the researchers reported. This means that antibiotics that could be used for treatment was well appreciated by the hospital authorities and the villagers as well.

failed more than half the time in 40 per cent of chickens and one-third of pigs raised for human consumption.

Since 2000, meat production has accelerated by more than 60% in Africa and Asia, and by 40% in South America, as countries on those continents shifted from low- to high-protein diets. More than half of the world’s chickens and pigs are in Asia.

‘This paper is the first to track antibiotic resistance in animals globally and it finds that resistance has gone up dramatically during the past 18 years,’ said co-author Ramanan Laxminarayan, a senior research scholar in PEI. The research was supported by the PEI Health Grand Challenge program and included co-author Julia Song, a graduate of Princeton’s Class of 2018 and a past PEI research assistant.

‘We certainly do want higher-protein diets for many people, but if this comes at the cost of failing antibiotics, then we need to evaluate our priorities,’ Laxminarayan said.

Meat production accounts for 73% of global antibiotic use. Antibiotics have made large-scale husbandry and widespread meat consumption possible by reducing infection and increasing the body mass of livestock.

The rapidly increasing emergence of antibiotic resistance in livestock is especially troubling in developing countries, said first author Thomas van Boeckel, an assistant professor of health geography and policy at ETH Zurich. Those nations continue to experience explosive growth in meat production and consumption, while access to veterinary antimicrobials remains largely unregulated.

According to Van Boeckel, a Princeton Fulbright Scholar from 2013-2015. ‘Antimicrobial resistance is a global problem,’ and ‘This alarming trend shows that the drugs used in animal farming are rapidly losing their efficacy.’

Unemployment has increased. Manufacture and exports have been hit. The reality of the economic situation as well as Assembly Elections in January in Delhi and some other states would all be the reasons for withdrawal from RCEP.’

Pharmaceutical marketing

Fact or Fiction: What Healthcare Professionals need to know about Pharmaceutical Marketing in the European Union

[https://haiweb.org/pharmaceutical-marketing-online/](https://haiweb.org/pharmaceutical-marketing-online/)

HAI Europe published a guide in November 2019 to help health professionals identify promotional activities and to enable critical appraisal of promotional material. Without such skills, practitioners may interpret misinformation as fact and prescribe or dispense specific medicines where other treatment options should be considered.

This guide and associated workshops have been developed to address this problem by providing an overview of pharmaceutical marketing practices and the ethical issues that arise from them.

**Learning Objectives**

- To identify and assess the methods used in pharmaceutical promotion activities.
- To understand the impact of pharmaceutical promotion techniques on clinical practice and public health.
- To learn about the European Union (EU) regulatory framework on pharmaceutical promotion and the problem of self-regulation.
- To enable critical appraisal of pharmaceutical promotion activities in a way that safeguards evidence-based medicine.

This guide and its workshop series build on the publication, Understanding and Responding to Pharmaceutical Promotion: A Practical Guide, produced by Health Action International, in collaboration with the World Health Organization, in 2009. The examples used in this new publication are not exhaustive, but are included to provide insight into the pharmaceutical industry’s strategies and resources as case studies.

**Misleading Marketing ‘Healthy’(?) foods:**

**CHOICE ‘Shonky’ Award 2019 goes to children’s breakfast food.**

HAIAP Partner CHOICE is the Australian National Consumer Organisation. CHOICE is campaigning for accurate labelling on food products among other things. Each year CHOICE gives ‘Shonky’ Awards for the most inappropriate and misleading promotional claims for products marketed in Australia.

**XO Crunch** is marketed as a ‘fun and nutritious way to start your kid’s day’ and it earns one of this year’s Shonky Awards for what CHOICE thinks is a smorgasbord of misleading health claims. This product is advertised as a kids’ food, but what it doesn’t advertise is that it’s made up of over 22% added sugar. It boasts about the product being a source of fibre, having the goodness of three grains, being low salt and low fat, and having no preservatives, artificial colours or flavours – in fact no ‘nasties’.

The box says ‘no nasties’, but does not mention the enormous 22.2% added sugar in the form of cane sugar and golden syrup. And as far as fibre goes, a child would have to eat six to eight bowls a day to get their daily requirement, by which time they’d have consumed 62 grams of added sugar – way over the recommended maximum daily intake.

CHOICE made a formal complaint to the Australian Competition and Consumer Commission (ACCC) to get this marketing withdrawn, and asked Australian consumers to contact Freedom Foods’ CEO Rory Macleod and to ask him to remove misleading health claims from XO Crunch.

**World Public Health Nutrition Congress 2020**

Brisbane Australia March 31 - April 2

Theme: Knowledge, Policy, Action in the Decade of Nutrition 2016-2020

[https://www.wphna.org/](https://www.wphna.org/)

Visit their website to read about a huge range of ‘watch-dog’ activities – including attention to misleading marketing. (Thanks Claudio Schuftan for the link)

---


15 ‘Shonky’ is Australian slang for deceitful and deliberately misleading
Skepticon 2019

**TGA, ACCC, Regulatory Panel Discussion in Australia**

Dr Ken Harvey

The Australian Skeptics National Convention at the University of Melbourne on 7th and 8th December 2019 featured a regulatory panel discussion: *Could Australian regulators better protect consumers from misleading and dangerous advertising of products making therapeutic claims?*

**Background:** From July 2018 the Therapeutic Goods Administration (TGA) took over the advertising complaint system from the Complaint Resolution Panel (CRP). The TGA were given increased compliance and enforcement powers that the CRP lacked.

The TGA also declared certain products that had received numerous complaints not to be therapeutic goods, thus hand-balling regulatory responsibility to the Australian Competition & Consumer Commission (ACCC). The latter complained they were already overloaded, and a specialist regulator was more appropriate.

Meanwhile, controversial promotion of products at the food-medicine interface, such as self-declared sports supplements and medical foods, highlighted problems with Food Safety Australia New Zealand (FSANZ), State and Territory Food authorities, and their interrelationship with the TGA. There was also concern about the TGA’s new complaint system.

---

**Measles in Samoa**

**Introduction**

National Immunization programs have been in place for over 30 years, following the inception of the Expanded Programme on Immunization (EPI) in 1974. Over the years vaccines costs were covered by UNICEF and other organisations and the EPI program itself provided structural and logistical support for the delivery of the whole program. Programs have also been boosted by several regional and global initiatives, including the Universal Children’s Immunization Initiative in the 1990s.

The GAVI Initiative was launched in 2000 and more recently the Global Immunization and Vision and Strategy, 2006-2015. The vaccine initiative envisaged governments gradually taking over all aspects of the immunisation programs, including the procuring of vaccines, and integrating the programs into Primary Health Care programs. However, many immunization programmes remain isolated from other components of primary health care. Many health services have yet to develop the capacity to deliver the program and there are growing concerns about inequities affecting the most disease-prone populations.

**Samoa** is a Polynesian Pacific Island country northeast of Fiji. **Samoa** consists of four inhabited and five uninhabited islands. The capital Apia is located on Upolu, the most populous and developed of the islands. Upolu and Savai'i, the other main island, account for 99 per cent of Samoa’s 192,000 population.

After the first cases appearing in October, by 12 December 2019, there had been 70 deaths from measles in Samoa, with 61 of the dead being children aged four years or younger.

Figures from the World Health Organisation and UNICEF indicate that only 30% of Samoan infants had been immunised last year - falling from as high as 90% in 2013. That low rate was exacerbated by a medical mishap that killed two babies who were administered a vaccine that had been incorrectly mixed, causing wider delays and distrust in the vaccination program.

Ideally, every country should have an immunisation level of above 90% to protect the population from vaccine preventable diseases. However, WHO recommends at least 95 per cent immunization coverage is needed to achieve ‘herd immunity’ for measles, through ensuring that most of the population is immune. Herd immunity also provides the best protection for the most vulnerable members of our community who can’t be vaccinated, including young infants, unvaccinated pregnant women and individuals with weakened immune systems. In the Pacific, as in other parts of the world, some countries have yet to reach this target which means they are at greater risk of outbreaks.

**How the epidemic grew**

*Melissa Clarke, Australian National Broadcaster (ABC) foreign affairs reporter in Apia, Samoa, described the evolution of the epidemic and the response.*

‘Samoa's measles epidemic grew slowly, then swelled suddenly. A few cases had appeared in October. By November, the Samoan Government had declared a state of emergency. Schools were closed and vaccinations made mandatory. But it was not enough to halt the spread of the virus.

‘Measles infections had popped up around the Pacific, but the virus only took hold in Samoa, where the national immunisation rate had fallen to a low of 30 per cent.

---


17 https://www.who.int/immunization/monitoring_surveillance/data/wsm.pdf

18 https://www.abc.net.au/news/melissa-clarke/4876738
‘Tonga and Fiji also declared states of emergency to tackle measles outbreaks but both countries have far higher vaccination rates and have so far not reported any deaths.’

**A preventable crisis**

Samoa’s troublesomely low immunisation rate was borne of an earlier tragedy.

In 2018, two babies died shortly after getting measles vaccinations. The nurses who administered the injections had incorrectly mixed an expired anaesthetic with the vaccine. It prompted the Government to suspend the nation’s vaccination program and though it was eventually restored, many Samoan mothers no longer trusted the vaccination process.

When the outbreak occurred the Samoan Government arranged a nation-wide shutdown to get people vaccinated. Businesses were ordered to close and all citizens placed under a curfew to allow mobile vaccination teams to go door-to-door.

Residents were told to hang a red flag outside their house to indicate there was someone inside who needed vaccination. Everything from crimson leis to the red-and-blue Samoan flag to were put to use.

Over two days, around 120 medical teams traversed the roads of Samoa in vehicles commandeered from across government agencies and NGOs. Fast and efficient, the teams vaccinated approximately 40,000 people, around 20 per cent of Samoa's entire population.

There was still some evidence of ‘no trust’

Some of the nurses reported seeing people run away as mobile vaccination teams neared. Others stayed but refused to be treated. Some parents turned to traditional healers first, only seeking help from the medical system when it was too late.

New ‘anti-vaxxers’

After the two deaths last year from incorrectly administered vaccines, there has been a new audience for anti-vaccination campaigners. Both local and foreign ‘anti-vaxxers’ peddled their messages on social media, a potent act in a country where Facebook is a key source of information.

The dangerous calls have prompted the Samoan Government to order that anti-vaccination advocates immediately stop discouraging people from seeking vaccination, while Prime Minister Tuilaepa Dr Sailele Malielegaoi suggested jailing anti-vaccination advocates.

Samoa's Prime Minister is blunt. ‘Parents should bring their children for vaccination,’ he said. But he rejects suggestions that such remarks put the blame on parents. ‘There are parents who did not believe that their children should be vaccinated … it is a question of educating our people to understand what they must do,’ he said. ‘It is imperative … to strengthen the culture of acceptance of vaccination in order to create herd immunity. … This is a painful lesson we have learnt from the current crisis.’

In 2018, measles caused close to 142,000 deaths around the world and the United Nations’ sees in Samoa’s epidemic echoes of global problems.

‘Scepticism regarding the safety of the vaccine and the expanding atmosphere of doubt around vaccination — even in the most advanced countries — are among the underlying causes of the dramatic expansion of the disease,’ said Ms Marinescu, United Nations’ resident coordinator in Samoa.

---

**DNDi** (Drugs for Neglected Diseases)

15 years of needs-driven innovation for access

- Key lessons, challenges, and opportunities for the future


**DNDi** 15 years of needs-driven innovation for access

An in-depth overview of both the successes and challenges we have experienced in delivering and advocating for public-interest R&D, looking at the six distinctive features of DNDi’s alternative not-for-profit model: needs-driven; independent; collaborative, open, and transparent; globally-networked; access-oriented; and transformative.
Award for veteran CHW (Behvarz)

In October 2019, the WHO Regional Committee (RC) for the Eastern Mediterranean (EMRO/RC) was held in Tehran. One day before the RC meeting, there was a Ceremony where the WHO/ DG presented an Award to Mrs Farideh Akbari, one of the Community Health Workers/ Behvarz of West Azerbaijan, Iran. She was one of the first batch of Behvarz who was selected and trained by Dr Mohammad Ali Barzgar who was invited to be present at the Award ceremony. The previous week Dr Barzgar had visited West Azerbaijan, after almost 50 years and he says that he saw the ‘Miracle of Primary Health Care’.

(Iran’s PHC program was described in the HAIAP News August 2016)

Dr Barzgar and Mrs Farideh Akbari after the ceremony

Health Services Development Research Project: West Azerbaijan Iran:
A report from Dr Mohammad Ali Barzgar

In November 2019, Dr Mohammad Ali Barzgar spent a week in West Azerbaijan Iran where the ‘Health Services Development Research Project’ (HSDRP) had been Jointly initiated by the Ministry of Health of Iran, School of Public Health, University of Tehran, and World Health Organization. The goal of the HSDRP was: ‘to discover and test better ways to solve multiple health problems through an effective and efficient national health delivery system’.

The project had been prepared and launched in July 1971, after several field visits to different provinces and the development of an agreement that had been signed in 1969. The late Dr Hafdan Mahler visited Iran several times in connection with this project while he was deputy D.G./ WHO and later as DG/ WHO.

The Project design is based on 10 steps. The first four steps analysed the situation. The next three steps planned what was to be done. While the last three steps were interventions and implementation.

The Situation Analysis

One: Existing data were collected making the most of whatever data were already available.

Two: Additional surveys: Quick surveys were undertaken to collect the data that was wanted but not available at the time.

Three: Analysis, interpretation and summarising the data: This step proved to be a giant task - 120 Tables were produced from the analysis of part of the data.

Four: The constraints found were listed and evaluated.

Planning

Five: The criteria on which to base planning decisions were chosen. Eventually 16 criteria were listed.

Six: Choice of the critical decision points that would be appropriate: For example the intervention should take place at: A. Administrative level,  B. At secondary care

---

- http://www.emro.who.int/about-who/regional-committee/

20 Dr Barzgar wishes to thank H.E. Dr. Agha Zadeh , The Chancellor Of the Health Sciences University Of URUMIA, and the Deputy Minister Of Health and Medical Education Of Islamic Republic Of Iran, and Dr. Entezare Mehdi, the Deputy Chancellors for Public Health Affairs Of the province of West Azerbaijan, and for their kind support to my field visit to the project. Dr. Mohammad Ali Barzgar, Scientific Director Of the West Azerbaijan Project.

- HAIAPNewsAugust2016
level, C. At Primary Care level, the planning Team agreed up on at Primary Care Level.

**Seven:** Application of the criteria to the decision points: This activity resulted in the decision that gave us our major interventions to promote Primary Health Care (PHC).

**Intervening and Evaluating.**

**Eight:** Interventions were implemented in a Pilot area. The activity was undertaken in the field Laboratory at Chonghralu in 1971 using an initial experimental cluster of 30 villages with 28,000 population that had ten Health Houses and 12 Behvarz.

**Nine:** Interventions were Implemented in the in a Province when they were proved to be useful. PHC was provided in four districts of West Azerbaijan after a satisfactory Internal Evaluation and agreement of the Ministry of Health of Iran in 1974.

**Ten:** Interventions using the PHC approach were applied nationally. This step was done after an international Evaluation Team from WHO, assisted by nationals, over a period of one month had carefully assessed and evaluated the West Azerbaijan Project and three other PHC projects - two in Kavar Shira and one in Alashtar Iorestan, Iran in 1976. The Evaluation Team suggested to the Minister for Health of Iran that the West Azerbaijan Project was a relevant National Model for the Implementation at country level with the justifications that were shown by the situation analysis.

**Background: The West Azerbaijan Project**

The West Azerbaijan Project provides the most comprehensive integrated health care of all the projects. The emphasis in this project is on family health care and environmental sanitation, with curative care playing a much less important role than is the case in the other projects.

The approach in this project is based on detailed initial analysis of health needs and problems, with the result that the overall program is particularly relevant to the health needs of the area. The design of the project, and the emphasis given to the priorities in PHC, are particularly impressive. The content and performance of Behvarz in maternal and child care are excellent and other projects might well benefit from the experience gained by the project in this field of activity.

The West Azerbaijan Project is the only one of the four projects where the nutritional status is monitored effectively and where nutrition education forms an important component of the maternal and child health program. Vaccinations are also carried out routinely and efficiently because of the project’s integral relationship with the Ministry of Health and Social Welfare. Examination of a sample of records in one village revealed all vaccinations completed and all weight charts, antenatal and family planning records correctly completed, illustrating a high level of continuous patient care for vulnerable groups, which is a particular feature of the project.

The project also includes Communicable Disease Control programmes, integrated with the other activities of the project. The system of record keeping has been particularly well designed to be of maximum use in monitoring performance and guiding the activities of health workers. Only a simple level of curative care is provided, but well defined specific referral criteria are used effectively. A relatively high proportion (15-20 per cent) of curative cases have to be referred and the system works well. However, it is questionable whether the community’s need for curative care is being as adequately met as, for example, in the Kavar project where the more skilled Behdar Centre is more accessible than the health centre or visiting physician of West Azerbaijan. 23 H.E. The Minister of Health and Social Welfare agreed to the suggestions of the Evaluation Team, increased the salary of Behvarz and allocated 20,000 posts for them.

Dr Barzgar continues: At the beginning of the project I was the head of the West Azerbaijan Research and Training Centre and assistant National Scientific Director during the Situation Analysis. But during the intervening period I was promoted as the National Scientific Director of the HSDR Project, and initiated the Chonghralu Field Laboratory. We selected 12 Behvarz - 8 girls and 4 boys from the same village where he or she was to work after training. Girls were at least 16 years old with minimum 6 years education and boys with at least 20 years old after military services, and minimum 6 years education. They were trained for four months in the classroom followed by 18 months practical training in the field, ie at a village’s house, a Health House and a Rural Health Centre.

The training was delivered according to a block system, based on the priority needs of the community as identified by findings of the Situation Analysis. For example IMR was 131/ per thousand live birth and MMR was 400/ per 100,000 live birth, and Birth Rate was 42/ per thousand population, and population increment was 3/2 per cent. Therefore our first training block was child care, second block was antenatal care and family planning, and the third block was control of communicable diseases and sanitation.

---

Six months after the establishment of the Khaneh Behdasht (Health House) in the village all the vaccine preventable diseases had disappeared due to vaccination of all the children of the village; and the promotion of breast feeding that confers passive immunity on young infants. The villagers also mentioned that their village was cleaner after establishment of the Health House.

During the situation analysis, it had been found that 80% of the common curative problems of the people during the previous two weeks were from six complains like cough/common cold, diarrhoea, eye infections, osteo-muscular pains, abdominal pain -later categorized by physicians into 10 diagnosis including upper respiratory infections, gastroenteritis, conjunctivitis, etc..

We assumed that a person with primary level education and four months of practical training could manage about 80% of the above conditions. In our experience the Behvarz could manage 80% of the problems and be able to refer 20% as needed to the physician in a Rural Health Centre.

Taking into the consideration the satisfaction of the people and the improvement of the situation in terms of the disappearance of the prevalent childhood diseases the project had been extended to four districts of West Azerbaijan covering a population of 1.3 million with the approval of the Ministry of Health and Social Welfare. After the International Evaluation during the Shah’s government the project was planned to be extended to country level. We were able to establish around 3000 Health Houses and train about 5000 Behvarz during the Shah's Government.

However, the revolution toppled the Shah's Regime in 1978. There were some months of no action after the revolution. There were even some rumours that all the programs of the Shah’s regime would be disregarded. Finally I approached the Deputy Minister of Public Health Affairs. I briefed him about the project and requested him to please assign an assessment mission to the project and then decide about the future of the project. Fortunately the assessment mission was fielded and it strongly defended the project after visiting the project areas in West Azerbaijan. After that, the Deputy Minister formed a Board for the extension of the program at country level with me as the National Scientific Director. Dr F. Amini the previous Scientific Director and Professors of School of Public Health were invited to train and orient the members of the board about the HSDR project. We shared our valuable experience with the Board and the Deputy Minister - H.E.Dr Marandi - who was appointed as the Minister of Health later on and became one of the best in Iran's History. He is currently a member of the parliament.

The Board, with our technical support, tried to extend the program to all other places where there was no Primary Health Care Network. I am glad to mention that now about 20,000 Health Houses have been established, and about 35,000 Behvarz have been trained and formally recruited by the Ministry of Health and Medical Education. They have covered about 30 million of the rural population of the country scattered in around 50,000 villages. I am also pleased that the IMR has been reduced from 131/1000 live birth in 1971 to 12.51 in 2018. And MMR from 400/100,000 live birth to 25 / 100,000 live birth. In 2015. The birth rate in 2016 was 2.138 birth for each woman. To me all of the above figures are evidence of achievements of a health system based on Primary Health Care where Iran is a pioneer in the EMRO Region of WHO. That is why the DG of WHO and RD/ EMRO awarded the first Behvarz of the West Azerbaijan during the 26th Regional Committee meeting.