



# Superbug Seminar serves up shock statistics

Ever considered a world where a simple scratch could lead to death? The rise and rise of antimicrobial resistance means this is a very real possibility – and as early as 2050.

**By PDG John Kevan, Rotary Club of Mandurah Districts, WA**

The Rotary Club of Mandurah Districts, WA, in partnership with AMR Aware Inc., recently held a Superbug Seminar aimed at addressing the growing health concern of drug-resistant infections.

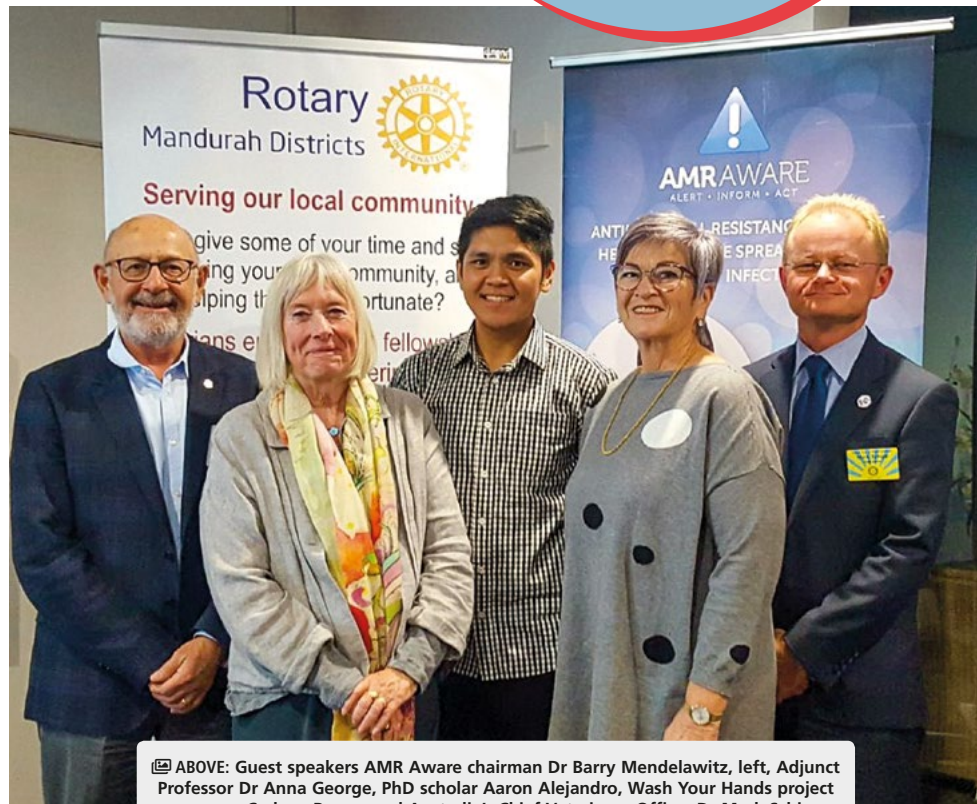
Many of the 100 delegates in attendance were surprised to learn about antimicrobial resistance (AMR), and how it already affects community health all over the world. Antimicrobial resistance occurs when microorganisms in our system evolve to become resistant to antibiotics.

“Most of the antibiotics we have in our systems come from the food we eat,” said AMR Aware chairman Dr Barry Mendelawitz, of the Rotary Club of Applecross, WA. “However, the increase of people taking antibiotics for the wrong reasons, primarily for viral infections, is an increasing cause for concern. Australia is the 11th highest user of antibiotics in OECD countries.”

Dr Mark Schipp, Australia’s Chief Veterinary Officer and member of the Rotary Club of Canberra Sunrise, ACT, presented an alarming insight into the potential challenges facing Australia through imported food, as well as the importance of maintaining strict surveillance on our own food production. Most antibiotics are used in animal industries.

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For more information on AMR and what you can do to address one of the biggest threats to global health, food security and development today, visit [www.amraware.org](http://www.amraware.org).



ABOVE: Guest speakers AMR Aware chairman Dr Barry Mendelawitz, left, Adjunct Professor Dr Anna George, PhD scholar Aaron Alejandro, Wash Your Hands project manager Carlene Brown and Australia’s Chief Veterinary Officer Dr Mark Schipp gave informative and sometimes scary forecasts of the challenges that lie ahead at the Rotary Club of Mandurah Districts’ Superbug Seminar on May 8.



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cannot be cured by antibiotics,” Mark said. “This will be a huge cost to the world economy.”

Antibiotics have only been with us since the 1940s, but since that time, millions of human and animal lives have been saved through their use.

They have also enabled huge advances to be made in medicine, including complicated surgeries and treatments, and have contributed to livestock, food and agricultural production.

However, within two years of penicillin being produced the first reports of bacterial resistance to the drug began to occur. This pattern continued as each new antibiotic was put into use. Today, we are seeing bacteria produce multiple resistance to almost all antibiotics on the market.

Antimicrobial resistance is now one of the most important global threats to human and animal health. It results from overuse and inappropriate use of antibiotics in animals and humans in all parts of the world.

“By 2050, we may once again be living in an era where we have no antibiotics to treat simple infections,” Barry said. “People will die from scratches infected with superbugs, and caesarean sections, prostatectomies and joint replacement surgeries will be high-risk.”

Sixty-five per cent of Australian workers thought a course of antibiotics would help them recover more quickly from viral infections, such as colds and flus. This is totally incorrect.

Twenty per cent of people visiting their GP expect to be given a script for

## What you can do:



**1** Prevent infections by regularly washing your hands and keeping up to date with vaccinations



**2** Prevent food-borne infections by washing fruits and vegetables and cooking food properly



**3** Understand that antibiotics only work against bacteria. They do not work for colds and flus which are caused by viruses



**4** Don't pressure your health professional for antibiotics if they say you don't need them, ask about other ways to relieve your symptoms



**5** Only take antibiotics when they are prescribed for you, don't use or share leftover antibiotics



**6** Follow your health professional's instructions when you are prescribed antibiotics



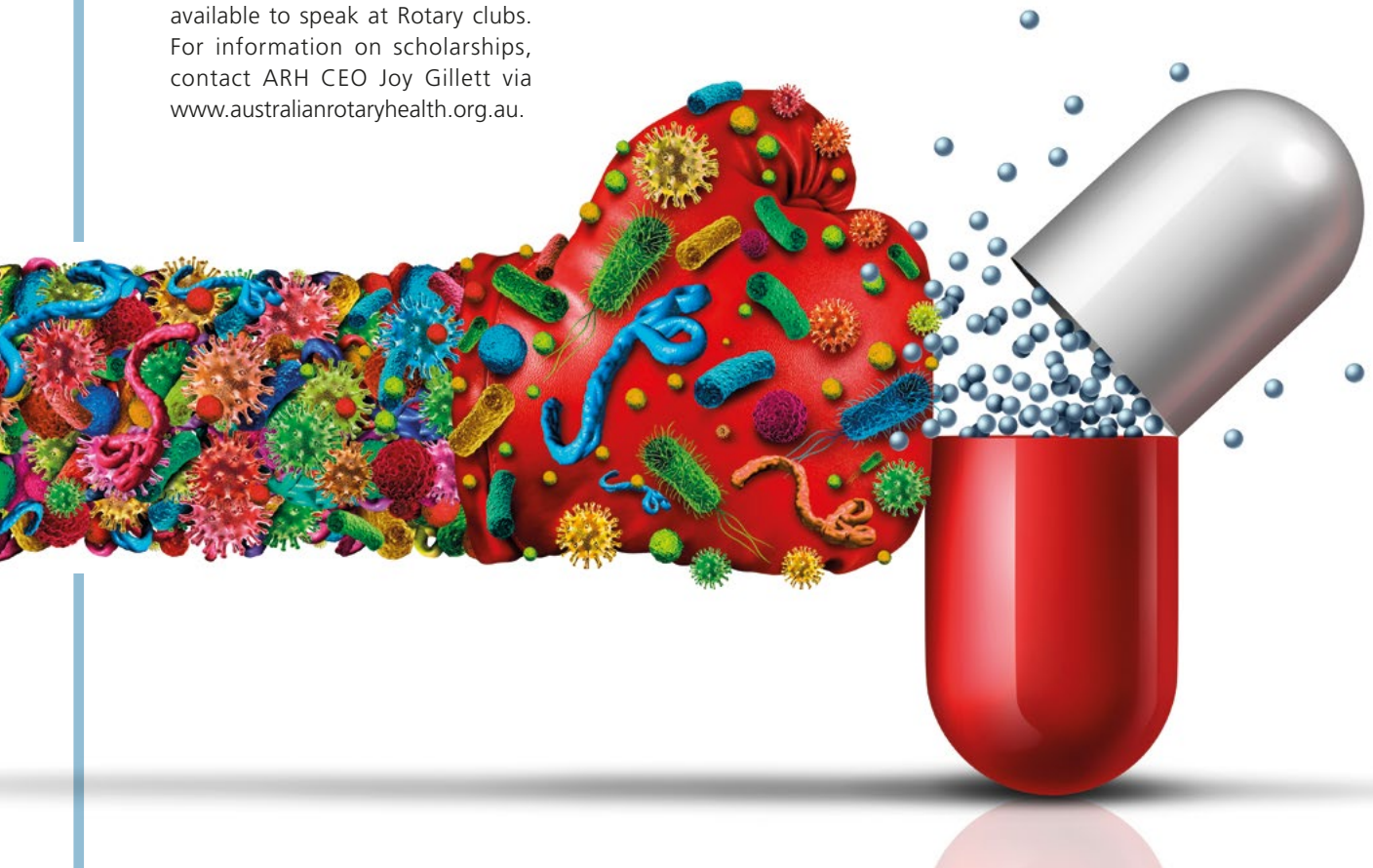


antibiotics and 60 per cent of GPs surveyed would give patients scripts for antibiotics when requested, regardless of whether the cause of infection was viral.

There is an urgent need to increase public awareness about the threats and ways to control antibiotic resistance in the community. To help address the issue, the Rotary Club of Mandurah Districts has commenced a *Wash Your Hands* project, placing age appropriate, colourful signs in the washrooms of all schools in the Peel Region. By reducing infection, we can all reduce the need for antibiotics.

Australian Rotary Health (ARH), the Rotary Club of Applecross, WA, and other Rotary clubs recently awarded a PhD Scholarship to Aaron Alejandro at Murdoch University through ARH's Funding Partner PhD Scholarship program, to continue research in this area. Aaron was one of the guest speakers at the Superbug Seminar and is available to speak at Rotary clubs. For information on scholarships, contact ARH CEO Joy Gillett via [www.australianrotaryhealth.org.au](http://www.australianrotaryhealth.org.au).

Antimicrobial Resistance (AMR), is a widely accepted label for an ever-expanding global health problem. A more relatable term is drug-resistant infections, otherwise known as "superbugs". It means that certain microbes develop protection from chemical agents, such as antibiotics, allowing infection in humans and animals to establish and flourish. We are well into a disturbing era where antibiotics are losing their effectiveness because of rapid superbug microbial resistance.





# One Health Initiative – a challenge for us all

**PRESIDENT** of the Rotary Club of Applecross, WA, Dr Barry Mendelawitz, recently updated members on the club's One Health Initiative, aimed at addressing health problems in a holistic manner by understanding the interconnectivity of human, animal and environmental (plant, earth and water) health.

Many serious infectious diseases of humans have either originated in animals or been transferred from them by way of insects (e.g. malaria and mosquitos), whose successful breeding depends on the local environment.

Through its One Health Initiative, the Rotary Club of Applecross hopes to address AMR by influencing other Rotary clubs and the broader community to become alerted, informed and act to intercede in the relentless march of superbugs.

In numerous reports and strategies produced across the globe, the overwhelming recommendation has been to raise community awareness about the prevention of infection and the misuse of antibiotics. The basic message is the advocacy of effective handwashing, promotion of vaccination, and education regarding antibiotic use.

"These are messages that all Rotarians can publicise," Barry said.

"Governments and non-governmental organisations worldwide have been active in promoting research and documenting AMR, but have not matched this in actively promoting awareness and effectively disseminating information."

Members of the Rotary Club of

Applecross decided Rotary could take a leading role in requesting government action, or else take up the challenge themselves.

"Rotary's history in this area speaks for itself," Barry said. "We believe Rotarians and their clubs should unite to be a potent force in making a difference. Rotarians have shown they are a powerful and effective agent in so many areas of community need. The problem of antimicrobial resistance is enormous and frightening and shows no signs of being reduced.

"Rotary clubs are in a unique position to apply the One Health Initiative to projects worldwide, promoting the delicate interface between people, animals and the environment. When considering a project, whether large or small, local or international, Rotarians can easily peer through the One Health Initiative lens and bring the mindset of interconnectivity into everyday focus and consciousness."

With AMR posing such an immediate threat to community health, the Rotary Club of Applecross is preparing to launch a Rotary Action Group – One Health Initiative (RAG-OHI), to enable Rotarians around the world to become part of this lifesaving medical awareness program. The One Health Initiative will unite the implementation of programs on human medicine, veterinary medicine and environmental science, to enhance all aspects of disease prevention and treatment.

The group includes doctors, veterinarians, microbiologists and environmental scientists, and is supported by Dr Mark Schipp, of the Rotary Club of Canberra Sunrise,

ACT, Chief Veterinary Officer of Australia and International President of OIE, the leading global animal health organisation.

"It's time to lobby at all levels and we invite other clubs to support us in the One Health Initiative," Barry said. "We recommend clubs seek appropriate information to run a One Health scrutiny over all their projects."

**For more information, contact Dr Barry Mendelawitz via [bmendelawitz@westnet.com.au](mailto:bmendelawitz@westnet.com.au) or 0419 969 551.**

## One Health

The concept of "One Health" promotes a way of considering health problems in a holistic manner, appreciating the interconnectivity of human, animal and environmental (plant, earth and water) health. Many serious infectious diseases of humans have either originated in animals or been transferred from them by way of insects (e.g. malaria and mosquitos), whose successful breeding depends on the local environment. In approaching the problem of AMR, appreciate that there is free movement of microbes between humans, animals and the environment. Thus, a One Health approach is essential at both the personal and community level.



# Fundraising campaign vaccinates Northland children against deadly Meningococcal disease

School children in the New Zealand settlement of Hikurangi who were ineligible for the free Meningococcal W vaccination have now been vaccinated against the deadly disease, thanks to a \$20,000 fundraising campaign.

**WHEN** Shona Whitehead discovered most of the young people in her Hikurangi community had not been vaccinated against the deadly meningococcal disease, she wanted to help. She wasted no time launching a campaign to raise \$20,000 to vaccinate approximately 200 Hikurangi school students, aged five to 12 years, who were in the ineligible age bracket for the free Meningococcal W vaccinations. She set about gathering donations from the community, collecting \$6025.

Shona then met with Whangarei MP Dr Shane Reti, who agreed to order the vaccines at absolute cost and carry

out the vaccinations himself. Shane, an honorary member of the Rotary Club of Whangarei, NZ, suggested she get in touch with club member Shirley Faber for funding help. Shirley and Shona presented the case to the club and sparked the interest of Peter Mulhare.

"She was really passionate about the whole cause," Peter said. "She was fighting for the kids."

Peter approached the Harold Thomas Rotary Trust, which agreed to match dollar for dollar whatever the club could raise. The Board increased the club's contribution to \$3400 and Peter secured a further \$2500 in a district grant. The club's \$11,800 donation got the campaign over the line, with a combined total of \$17,825 raised. Two further fundraising events brought the final amount up to the initial target of \$20,000.

"The big thing was confirmation of the money," Shona said. "It's given us hope for our children.

"Parents with multiple children just

can't afford it. That's who it really affects. It's high-cost."

The full-day vaccination program was carried out on May 4, with 175 children vaccinated in total. Only six children were not involved. Enough money was left to purchase a further 28 vaccines, which were donated to Whananaki School.

The campaign was spurred on by the death of seven-year-old Hikurangi girl Alexis Albert, who died from the disease last winter. Three people in Northland have died from the disease since the strain came into the country last year.

Shane commended Shona, her mum Ani Hemera, the Rotary Club of Whangarei, and the community for their efforts.

"It's sending a signal that Northland children need to be vaccinated – this is the Hikurangi community standing up."

Shona was so grateful to the Rotary Club of Whangarei that she decided to join them as a way to give back.



ABOVE: Rotary Club of Whangarei members Shirley Faber, left, president Maurice Schicker and Peter Mulhare.