Speech presented by Amanda Millar MLC, Member Northern Region, Victoria (representing the Hon David Davis, Minister for Health) from the Antibiotic Awareness Week launch, Bendigo Health, Tuesday 19th November 2013.

Good morning ladies and gentlemen, thank you for your invitation to the Minister for Health to speak at the Antibiotic Awareness Week launch this morning. It gives me great pleasure to attend and speak on his behalf. Thank you also to Bendigo Health for hosting this event today.

Today is about highlighting the importance of judiciously managing an incredibly precious medical resource – antibiotics. Seventy-one years ago, an American patient, Mrs Anne Miller, became the first patient saved by penicillin – Mrs Miller was hospitalised suffering from a serious streptococcal infection, delirious with high fevers and close to death. Her rapid recovery following administration of what was then an experimental drug – penicillin – made medical history around the world. In fact, Mrs Miller’s medical chart, showing a sharp overnight drop in temperature, is held at the Smithsonian Institution in Washington DC. ‘The drug that changed the world’, ‘A medical triumph’, ‘A miracle’ heralded penicillin’s introduction to society.

Fast forward to modern day and we, as a society, have become complacent. We take for granted that should we develop a bacterial infection, there will be an antibiotic cure. And for the vast majority of cases, this remains true currently. Remarkable advances in medicine, including organ transplants, cancer chemotherapy, neonatal care, safe surgery and intensive care interventions, are underpinned by our ability to control infection. However, the emergence and spread of antibiotic resistant bacteria, known in the media as ‘superbugs’, threatens to change all this.

Antibiotic resistance is not a new problem – the ‘discoverer of penicillin’ Alexander Fleming noted the propensity for bacteria to develop resistance to penicillin is in his Nobel Prize winning address back in 1945.

So what does antibiotic resistance mean to us in 2013?

We understand that antibiotic resistance is an enormous public health and patient safety issue. The World Health Organisation maintains that it is one of the three biggest public health issues in the world. We hear increasing reports in the media of antibiotic resistance, of ‘superbug’ infections in our hospitals, and of the dwindling alternative treatment options available in terms of new antibiotic medicines. Earlier this year we heard the UK’s chief medical officer, Dame Sally Davies, compare the threat posed by antibiotic resistance to that of terrorism or climate change. And of course, in Australia, we heard about this year’s senate inquiry into progress with implementing the recommendations of the 1999 JETACAR report (a report which proposed a way forward for Australia in addressing antibiotic resistance). The evidence presented at the inquiry by this country’s leading infectious disease specialists and professional organisations was both clear and compelling. We need to act now.

The toll on human health, the morbidity and mortality resulting from antibiotic resistance, and the economic costs to hospitals and to the community, likely to run into many millions of dollars, are rising. In 2006, the Commonwealth convened Expert Advisory Group on Antimicrobial Resistance
(EAGAR) estimated that antimicrobial resistance costed Australia around $750 million per year\(^1\), while a 2013 US report\(^2\) by the Centers for Disease Control and Prevention estimated that antibiotic resistance in that country now results annually in at least two million serious infections with antibiotic resistant bacteria, 23,000 deaths and direct health care related costs of up to US$20 billion.

What about new drugs? Better antibiotics? Unfortunately we can no longer rely on new drugs to solve this problem. The pipeline of new antibiotics from the pharmaceutical industry has greatly diminished. The commercial return on a drug likely to be used for short courses only, or held in reserve, and then quite possibly become of limited use when resistance to it invariably develops, is less than favourable.

A coordinated and comprehensive national surveillance and response system and associated pathology laboratory coordination is well recognised as a critical component of any efforts to combat AMR. The national committee established in 2012 to oversee antimicrobial resistance in Australia, the Antimicrobial Resistance Standing Committee (AMRSC), published a report this year on national surveillance and reporting of antimicrobial resistance and antibiotic usage in Australia, and recommendations regarding the way forward\(^3\). Of note, Victoria’s Chief Health Officer Dr Rosemary Lester, was an author on this report.

We do know also that antibiotic usage is a key driver of the development of resistance, and while antibiotic resistance is a complex issue, this is one area that all of us can make a difference to. For prescribers in hospitals and in the community, to ensure that antibiotics are only prescribed when justified and for all of us, as health care consumers, to not have the expectation that our doctors prescribe antibiotics for an illness that’s most likely a viral infection.

On a local level, what are we doing about antibiotic resistance in Victoria?

This launch of Antibiotic Awareness Week here today is just a small part of our state efforts to highlight the issue of antibiotic resistance and the importance of judicious antibiotic use. Our hospitals, public and private, metropolitan and regional, are working hard to develop and implement effective management systems for antibiotics, known as ‘antimicrobial stewardship’ (AMS) programs, in line with this year’s new National Safety and Quality Health Service Standards. At a state level, Victoria contributes to progressing antimicrobial stewardship through participation in the national AMS advisory committee and jurisdiction networks. The Department of Health Quality Use of Medicines Program is also working to support AMS in Victorian hospitals.

A 2012 survey by the Department of Health together with Melbourne Health just published in the Medical Journal of Australia this week describes Victorian hospitals’ progress in developing antimicrobial stewardship programs\(^3\). On a positive note, almost all hospitals had access to national antibiotic use guidelines and almost half already had antibiotic prescribing policies in place. The

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\(^{1}\) Shaban RZ, Christiansen K & the Antimicrobial Resistance Standing Committee (2013). *National Surveillance and Reporting of Antimicrobial Resistance and Antibiotic Usage in Australia*. Antimicrobial Resistance Standing Committee, Australian Health Protection Principal Committee: Canberra


study also showed however, that while significant progress has been made, gaps are apparent across all sectors, although are most marked in rural and regional health services and private health services. Most commonly cited perceived barriers across all hospitals include a lack of training and education for staff in antimicrobial use (62% of all hospitals), a lack of leadership to promote antimicrobial stewardship (41%), and a lack of willingness from doctors to change their prescribing practices (34%).

We continue to work together with hospitals in addressing these gaps, and also to celebrate and share achievements in addressing these challenges. Indeed we will hear today how Bendigo Health is helping to lead the way in development of antimicrobial stewardship programs for regional health services.

In marking Antibiotic Awareness Week, we join with other countries and regions around the world, including Europe and the UK, the United States and Canada to show our united front on this issue. The Australian campaign is led by the Australian Commission on Safety and Quality in Health Care and NPS MedicineWise. Both organisations have made a variety of promotional/educational materials and activities available on their websites for hospitals, primary health care practitioners and consumers. I encourage you to seek these out.

An important added dimension of this year’s campaign is the involvement of animal health care practitioners (through the Australian Veterinary Association), and also the farming and agricultural sectors. Given that antibiotics are used in humans and animals, a coordinated and collaborative approach between the different sectors is critical in effectively addressing antibiotic resistance, so it is great to also have the opportunity to hear from an animal health expert here today on progress made in this area.

In closing, it is clear that addressing AMR requires a real commitment from each and every one of us, both as individual consumers and as health care and other related professionals, and also as organisations. We need to work together to help find solutions to this most pressing of public health issues.

To this end, I encourage you all to support and participate in Antibiotic Awareness Week. Thank you.