

COMMONWEALTH INTERDEPARTMENTAL JETACAR IMPLEMENTATION GROUP (CIJIG)

PROGRESS REPORT ON THE IMPLEMENTATION OF THE GOVERNMENT RESPONSE TO THE JETACAR REPORT

1. Background

The Joint Expert Technical Advisory Committee on Antibiotic Resistance (JETACAR) was established by the Minister for Health and Family Services and the then Minister for Primary Industries and Energy in April 1998. The purpose of the committee was to provide independent expert scientific advice on the threat posed by antibiotic resistant bacteria to human health by the selective effect of agricultural use, and medical over use, of antibiotics. It reported to the Commonwealth Government in October 1999, making 22 recommendations for an antibiotic resistance management program covering regulatory controls; monitoring and surveillance; infection prevention strategies; education; research.

The Commonwealth Government Response to the Report of the JETACAR, released in October 2000 (the Government Response), largely supports the JETACAR's recommendations. It acknowledges the threat posed to human health by antibiotic resistance and supports the development of a national antibiotic resistance management program.

2. Implementation - process and coordination

Implementation of the Government Response involves stakeholder consultation and monitoring of the implementation process. Implementation is a shared responsibility of Governments, industries, educators, health and agriculture professionals and the community, and many strategies are being developed by these sectors. At the Commonwealth Government level, two committees were established to help progress the implementation process.

2.1 Establishment of the Commonwealth Interdepartmental JETACAR Implementation Group (CIJIG) (recommendations 21-22)

The CIJIG was established in November 2000. Its primary responsibility is to oversee and coordinate the continuing Government's response to JETACAR, particularly the implementation of the JETACAR recommendations as described in the Government Response. The CIJIG is composed of technical experts and senior representatives from relevant areas within the Department of Health and Ageing (Health and Ageing) and is jointly chaired by Health and Ageing and AFFA. The secretariat for the CIJIG is provided through the Population Health Division of the Department of Health and Ageing. The respective Chairs of the Australian Health Ministers' Conference (AHMC) JETACAR Taskforce, the Primary Industries Standing Committee (PISC) JETACAR Taskforce, formerly the Standing Committee on Agriculture and Resource Management (SCARM) JETACAR Taskforce, and the Expert Advisory Group on Antimicrobial Resistance (EAGAR) (see below) are also invited to attend CIJIG meetings.

2.1.1 Core membership of CIJIG

Name	Representation
Prof John Mathews	National Centre for Disease Control, Department of Health and Ageing

(Joint Chair)	
Dr Angelo Valois (Joint Chair)	Technical and International Policy, Department of Agriculture, Fisheries and Forestry — Australia
Dr Marion Healy	Australia New Zealand Food Authority
Ms Alexandra Geue	Population Health Division, Department of Health and Ageing
Dr Jonathan Webber	Office of the Chief Veterinary Officer, Department of Agriculture, Fisheries and Forestry — Australia
Dr John McEwen	Therapeutic Goods Administration
Mr Peter Raphael	National Registration Authority for Agricultural and Veterinary Chemicals
Dr Peter MacIsaac	Health Services Division, Department of Health and Ageing
Dr Clive Morris	Office of National Health and Medical Research Council

CIJIG members and the secretariat encourage interaction and networking of staff across these agencies involved in work that either directly or indirectly falls within the JETACAR agenda. Each member agency progresses JETACAR recommendations relevant to that particular agency. The CIJIG Secretariat manages the Implementing JETACAR Website (<http://www.health.gov.au/pubhlth/strateg/jetacar>). The CIJIG works mainly as a network, with meetings held as required.

2.1.2 CIJIG terms of reference

- (1) CIJIG will facilitate the planning, development, coordination, and implementation of the antibiotic risk management program proposed by the JETACAR, and as supported by the Commonwealth Government Response to the JETACAR.
- (2) To achieve these objectives, the CIJIG will:
 - (a) Consult with industry, State and Territory Governments (in particular through the AHMC JETACAR Taskforce and the PISC Taskforce on JETACAR), professional bodies and other key stakeholders in planning and implementing an effective national response;
 - (b) Liaise with the Expert Advisory Group on Antimicrobial Resistance (EAGAR) to develop a strategic work plan and communication strategy with defined time lines and planned outcomes;
 - (c) Communicate the Government's antibiotic resistant management program to stakeholders and the community;
 - (d) Respond to policy advice and technical advice received from EAGAR to effect a continuing Commonwealth response to the JETACAR;
 - (e) Examine funding options to support the advisory activities of the EAGAR and to facilitate development and implementation of an antibiotic resistance management plan;
 - (f) Establish appropriate working groups and commission work to further investigate or develop the recommendations contained in the Commonwealth Government Response; and
 - (g) Take such other actions as are necessary.
- (3) The Group will also monitor implementation of the recommendations and report progress to:
 - (a) The Minister for Health and Ageing and the Minister for Agriculture, Fisheries and Forestry — Australia;
 - (b) The AHMC JETACAR Taskforce;
 - (c) The PISC Taskforce on JETACAR; and

(d) Stakeholders.

2.2 Establishment of the Expert Advisory Group on Antimicrobial Resistance (recommendations 21-22)

The EAGAR provides independent scientific and policy advice on antibiotic resistance issues, and works closely with the CIJIG to develop and implement the national antibiotic resistance management program. As with its predecessor, the Working Party on Antibiotics (WPA), the EAGAR will provide advice to Commonwealth, State and Territory and Commonwealth Statutory organisations.

Early in 2001, industry and Government proposed relevant experts for the EAGAR membership for consideration by the Health Advisory Committee (HAC) of the NHMRC. Associate Professor John Turnidge was appointed as Chair of the EAGAR in February 2001. In April 2001, the NHMRC appointed the other committee members. The EAGAR will report through the CIJIG to the Ministers, and for specific policy and guidelines requiring NHMRC endorsement, it will work through HAC to the NHMRC.

2.2.1 Membership of EAGAR

Name	Primary area of expertise
Associate Professor John Turnidge (Chair)	Public health, Women's & Children's Hospital - Adelaide
Dr Mary Barton	Veterinary science, University of South Australia
Professor Richard Benn	Microbiology, Royal Prince Alfred Hospital
Dr Keryn Christiansen	Microbiology (Australian Drug Evaluation Committee member), Royal Perth Hospital
Dr Grahame Dickson	Medicine, Therapeutic Goods Administration
Associate Professor Peter Collignon	Infectious diseases, Canberra Hospital
Dr Sally Hasell	Public health microbiology, FSANZ
Professor Julian Rood	Molecular biology of antibiotic resistance, veterinary medicine, Monash University
Dr Gary Lum	Pathologist, microbiologist, Territory Health Services
Dr Jonathan Webber	Veterinary Science, Department of Agriculture, Fisheries and Forestry
Dr Tim Dyke	Veterinary science, National Registration Authority for Agricultural and Veterinary Chemicals
Dr Tom Grimes	Veterinary science, Poultry Industry
Associate Professor John Tapsall	Molecular microbiology, epidemiology and surveillance, Prince of Wales Hospital

2.2.2 EAGAR terms of reference (as amended May 2001)

- (1) The Expert Advisory Group on Antimicrobial Resistance (EAGAR) shall provide expert advice to Commonwealth, State and Territory Governments and Commonwealth Statutory Organisations on:
 - Measures to reduce the risks and levels of antibiotic resistance;
 - Assessment of the risk of developing resistance to new and marketed antibiotics;

- Public health implications of antibiotic resistance;
- The monitoring of antibiotic use;
- Surveillance and monitoring of antibiotic resistance;
- Antibiotic use in medical and veterinary science to include agriculture, aquaculture, horticulture, other non-human uses and food production;
- Relevant research and evaluation needs;
- Educational strategies;
- Intentional dissemination of antibiotic resistant genes; and
- Other matters relating to the control of antibiotic resistance in Australia.

- (2) The advice of EAGAR shall be based on an ongoing review of the relevant scientific literature, other available relevant scientific data, surveillance information and measures already adopted to minimise the risks of antibiotic resistance.

2.3 Monitoring implementation – AHMC and PISC

In August 2000 the Australian Health Ministers Conference (AHMC) appointed the AHMC JETACAR Taskforce to monitor and report to the Minister for Health and Ageing on the implementation of the Government Response. This group is due to submit its final report to the AHMC in July 2002.

2.3.1 Membership of the AHMC JETACAR Taskforce

Name	Representation
Dr John Carnie (Chair)	Victoria, Dept of Human Services
Dr Rod Givney	South Australia, Dept of Human Services
Dr Alistair McGregor	Tasmania, Royal Hobart Hospital
Dr Gary Lum	Northern Territory, Royal Darwin Hospital
Dr Paul Dougdale	Australian Capital Territory, ACT Health
Dr Michael Whitby	Queensland, Prince Alexander Hospital
Dr Dorothy Jones	Western Australia, Health Dept of WA
Dr Marion Healy	Australia New Zealand Food Authority
Dr Alex Proudfoot	National Health and Medical Research Council
Prof. John Mathews or Ms Alexandra Geue	Commonwealth Department of Health and Ageing

2.3.2 AHMC JETACAR Taskforce terms of reference

- (1) To facilitate implementation of the recommendations of the JETACAR report in cooperation with the Commonwealth and having regard to the Commonwealth Government response to the JETACAR report.
- (2) To monitor progress towards implementation of the recommendations of the JETACAR report and to consult with the Commonwealth and other key stakeholders in preparation of a progress report.
- (3) To report to AHMC by 1 July 2001.

The Primary Industries Ministerial Council (PIMC), formerly the Agriculture and Resource Management Council of Australia and New Zealand (ARMCANZ), appointed the PISC

Taskforce on JETACAR to monitor the JETACAR implementation from the animal industry perspective.

2.3.3 Membership of the PISC Taskforce on JETACAR

Name	Representation
Dr Robin Vandegraaff (Chair)	Primary Industries and Resources South Australia
Mr David Skerman	Meat and Livestock Australia
Mr John McQueen	Australian Dairy Farmers Federation Ltd
Dr Angelo Valois	Co-chair CIJIG, AFFA
Dr Kevin Doyle	Australian Veterinary Association
Dr Jonathan Webber	Department of Agriculture, Fisheries and Forestry
Mr Chris Etherton	Primary Industries and Resources South Australia
Dr Sarah Plant	Agriculture Western Australia
Mr Hugh Miller	Victorian Dept Natural Resources and Environment
Dr Tom Grimes	Australian Poultry Industry Association
Dr Paul Higgins	Pork Council of Australia Ltd
Mr Lee Cook	New South Wales Agriculture
Mr Rick Webster	Queensland Dept of Primary Industries
Dr Leigh Nind	National Registration Authority for Agricultural and Veterinary Chemicals

2.3.4 PISC Taskforce on JETACAR terms of reference

- (1) To facilitate implementation of the JETACAR recommendations, as modified in the Government Response.
- (2) To provide progress reports to PISC, initially in March 2002.

The PISC Taskforce on JETACAR met on 14 February 2002 to discuss the progress in implementing the agricultural aspects of the JETACAR recommendations. The taskforce reported to PISC in March 2002. The taskforce plans to meet with stakeholders later in 2002 to discuss the proposed antimicrobial resistance monitoring and surveillance plan.

Members from both Taskforces were actively involved in the Antibiotic Resistance Surveillance Workshop (4 May 2001) and the National Summit on Antibiotic Resistance (30 to 31 May, 2001). The two groups, with their industry and State/Territory Government connections, contribute to CIJIG activities and provide advice in their specific areas of expertise.

2.4 Communication and consultation

In December 2000, the Chairs of CIJIG, A HMC JETACAR Taskforce, and the SCARM JETACAR Taskforce (now the PISC Taskforce on JETACAR) wrote jointly to key stakeholders informing them of the implementation process, the roles of the respective committees, and asking them for their support. Responses have been circulated to the members of CIJIG, A HMC JETACAR Taskforce, PISC Taskforce on JETACAR and EAGAR, and will be considered by the CIJIG and EAGAR in the context of developing future strategies to control antibiotic resistance.

The CIJIG and EAGAR are working collaboratively to develop a strategic work plan. The planning process will involve stakeholder consultation, and the plan will be accessible on the *Implementing JETACAR* web site.

To keep stakeholders informed of progress, the *Implementing JETACAR* web site was launched in March 2001. The site contains progress reports, information on the implementation process, and key dates for coming events:

<http://www.health.gov.au/pubhlth/strateg/jetacar/index.htm>.

An important event in May 2001 was the National Summit on Antibiotic Resistance. This was the first main public forum for communicating the messages of JETACAR to the broader community, in particular to the veterinary and medical communities and various associated industries. It also provided participants, including the public, with the opportunity to raise concerns, identify gaps, and to suggest ways of implementing the JETACAR recommendations in a coordinated way throughout the various sectors. A communique of the National Summit on Antibiotic Resistance is available on the *Implementing JETACAR* web site together with the individual presentations from the speakers.

The National Summit provided a forum for exchanging vital information and fostered multi-sectoral support for a national antibiotic resistance management program. It also provided opportunity for different agencies and individuals to meet and establish networks. An important component of the national antibiotic resistance management program will be the development of a communications and education strategy in 2002. The EAGAR will take an advisory role in the development of this strategy, together with the CJIG through its various member agencies, the National Prescribing Service (NPS), the Pharmaceutical Health and Rational Use of Medicines (PHARM) committee and consumer groups.

Scoping and development of a national antibiotic resistance surveillance system is also underway. The antibiotic resistance surveillance workshop, held in Melbourne on 4 May 2001, was the first step in this consultation process.

Between June and September 2001 the Commonwealth hosted an extensive consultation process, consisting of focus groups and individual submissions to seek further input into the development of an antibiotic resistance surveillance plan. The consultation team consisted of an independent contractor, officers from the Commonwealth Departments of Health and Ageing, and Agriculture, Fisheries and Forestry – Australia. It is anticipated that an antibiotic resistance strategy will be available for public comment in second half of 2002.

3. Progress on specific recommendations

The following summary describes key activities that Commonwealth Departments and their agencies are undertaking to implement the Government Response.

Recommendation 1 - Adopting a conservative approach to antibiotic registration

Recommendation 1 was accepted by the Government as it continues the previous conservative approach taken by Australia to the registration of both medical and veterinary antibiotics. The NRA has prepared lists of antibiotic products registered for treatment and/or prevention of bacterial diseases in pigs, poultry and cattle.

Recommendation 2 - NRA review of antibiotic growth promoters

The NRA was already reviewing the glycopeptide antibiotic growth promoter avoparcin in October 1999 when the JETACAR report was published. Early in 2000, Roche, the manufacturer of avoparcin, withdrew their product from sale and in June 2000 the

registration lapsed. This meant that the NRA was able to accelerate the review of the streptogramin antibiotic growth promotant virginiamycin. The virginiamycin review was completed by the EAGAR and forwarded to the NRA for consideration in June 2002. Discussions about the review of macrolide antibiotic growth promotants are currently taking place between the NRA and the EAGAR.

Recommendations 3 and 11 - Monitoring antibiotic use

In its response to the JETACAR, the Commonwealth accepted that there should be a much stronger audit trail for antibiotic end-use, particularly in the veterinary field. However it was not convinced that the licensing of importers would provide all of the required information about end-use. With this in mind, the TGA and NRA are investigating cost-effective options for monitoring and auditing of antibiotic use that do not involve licensing of importers. A report of the first informal meeting with industry, held on 7 March 2001, is available on the *Implementing JETACAR* web site. A proposal to improve the collection of antibiotic use data in Australia was recently prepared for public comment by the NRA and TGA. The document was endorsed by the EAGAR and CIJIG and forwarded to the PISC and AHMAC Taskforces and the human and veterinary pharmaceutical industries for comment. It can be viewed on the *Implementing JETACAR* website. Comments are currently being considered. The NRA and TGA will then develop an effective mechanism to capture relevant data, in further collaboration with stakeholders and the CIJIG.

Australian experts attended the World Health Organization (WHO) Consultation on the Monitoring of Antimicrobial usage in Food Animals for the Protection of Human Health in Oslo, Norway, 10-13 September 2001. This consultation resulted in recommendations that have been forwarded to WHO for consideration. The NRA/TGA paper is consistent with both WHO and Office International des Epizooties (OIE) recommendations.

In human medicine, activities are underway to improve national data on antibiotic prescribing (usage). A pharmacy survey will be recommencing to provide estimates of non-subsidised prescriptions dispensed through community pharmacies. This data should be available from March 2002 and will include data from the period that community pharmacy surveys were not conducted. Once estimates of antibiotic dispensing through community pharmacies have been established, the Pharmaceutical Benefits Scheme (PBS) will be in a position to produce annual data on trends on antibiotic use in the community. This data will then be forwarded to the EAGAR and CIJIG.

The Pharmaceutical Benefits Advisory Committee (PBAC) has instituted a process (with EAGAR collaboration) to ensure that detailed advice on antibiotic resistance and related matters is obtained:

- (a) prior to any new antibiotic proposed for PBS subsidy; and
- (b) for any major change to a current PBS restriction for an antibiotic which is currently subsidised by the PBS. The objective is to ensure that antibiotic resistance and related matters are properly considered in the context of managing PBS.

Recommendations 4 and 9 - Pre-registration resistance information

The NRA, the veterinary pharmaceutical industry and other stakeholders are currently considering a draft VICH (International Cooperation on Harmonisation of Technical Requirements for Registration of Veterinary Products) guideline (VICH GL27) on pre-approval information for registration of new veterinary medicinal products for food

producing animals with respect to antimicrobial resistance. This document was available for public comment (by December 2001) at <http://vich.eudra.org>.

Companies registering new antibiotics are required to produce pre-registration information on antibiotic resistance characteristics to the NRA as part of the registration process. Australia and the US are the first countries in the world to implement this.

Recommendations 5 and 8 - Thresholds of antibiotic resistance

This is an area that has been referred to the EAGAR, as it requires specialist expertise. It requires the development of an antibiotic resistance surveillance system and an antibiotic usage surveillance system in order to progress Recommendation 5.

Recommendation 6 - S4 classification for antibiotics

The CIJIG has referred the decision on the scheduling of all antibiotics into the prescription only (S4) category to the appropriate authority, the National Drugs and Poisons Schedule Committee (NDPSC), for further consideration and action. The NDPSC has developed an approach for implementing recommendation 6 in consultation with CIJIG, EAGAR and NRA, and antibiotics are currently being considered by the NDPSC

Recommendation 6 allows for exemptions from being scheduled as S4 on a case by case basis. Such exemptions could be considered in cases where the risk of promoting antibiotic resistance was considered minimal, and where third party audited industry codes of practice are established. Ultimately any decisions on this matter will be made by NDPSC.

Recommendations 7 and 8 - Harmonisation of control of use legislation

The Government is using the Primary Industries Ministerial Council (PIMC) process to harmonise State & Territory control of use legislation to ensure uniform and enforceable Australia-wide control of agricultural/veterinary antibiotic use. In August 1999, PISC endorsed a set of principles that could be used as a regulatory framework to introduce nationally consistent control of use legislation in all States and Territories. The principles covered:

- Treatment controls which give specific powers to veterinarian and responsibilities to animal carers;
- Supply controls;
- Labelling controls;
- Identification controls;
- Recording controls; and
- General requirements.

Many of the principles are already included in legislation in Victoria and NSW. In the other States and Territories, legislation is at varying stages of being drafted and implemented. As of July 2002, the ACT is the only state that does not have legislation to control the use of veterinary products. Such legislation may be introduced to the ACT Legislative Assembly during 2003.

Control of use legislation is only one aspect of this recommendation. Other considerations include the broader issue of the approval process for antibiotics in major food producing animals and that if an antibiotic is approved for use for one food animal species it can be used off-label in other food animal species. This approval process impacts on EAGAR

when making recommendations. EAGAR has addressed this by clearly identifying label restraints when making recommendations. EAGAR recommends that the use of label restraints should be accompanied by an education plan for Veterinarians. EAGAR suggest that longer term legislation should clearly define “food producing animals”.

CIJIG and EAGAR will continue to monitor this process.

Recommendations 10 and 14 - Surveillance

Food and food-chain related

The Food Safety and Surveillance Section of Health and Ageing currently receives information on the prevalence of antibiotic resistant bacteria from two key sources: OzFoodNet and NEPS. In addition there are complementary activities that identify potential sources of data at present and in the future.

OzFoodNet - is an enhanced foodborne disease surveillance system, currently funded and managed by Health and Ageing until June 2003. An epidemiologist specialising in foodborne disease is located in each State/Territory Health Department, with a coordinating epidemiologist based in Melbourne. Information on foodborne disease is collated, assessed, and transformed into high-level, informed policy development at Commonwealth and jurisdictional level. As part of the activities of this system, research is being conducted into the antibiotic resistance of four key human pathogens associated with foodborne disease, these being *Salmonella* sp. (including multiply resistant strains of *S. enteritidis*), *Campylobacter*, *Listeria monocytogenes* and *Escherichia coli*. The research studies (case central studies) aim to identify common risk factors of foodborne illness for each of the above pathogens and monitor associated antibiotic resistance.

In addition to the case control studies, Oz FoodNet is examining methods to enhance data collection on antibiotic resistance and ways of feeding this data into policy development. One option that has been proposed is an ongoing national survey of pathogens in retail meats. This would enable the tracking of pathogens over an extended period, and provide an accurate picture of the potential for these strains to spread to neighbouring regions. As part of this survey the likely source of pathogens (whether animal or environmental in origin) and their antibiotic resistance would be monitored, hence providing invaluable data on the current incidence of non-nosocomial exposure to antibiotic resistant pathogens and trends in their spread and emergence

This data is accessible to all health departments in Australia, and is also shared with members of key agencies, such as Food Standards Australia New Zealand. Comprehensive reports for public information are also published as part of *Communicable Diseases Intelligence*. The annual report for OzFoodNet is due for publication shortly. This will also be placed on the *CDI* website at:
<http://www.health.gov.au/pubhlth/cdi/cdihtml.htm>

Increased sharing of data with primary industry authorities has been identified as an essential step in determining the spread of infections, including antibiotic resistant bacteria, from the food chain to humans. Steps to achieve this are being undertaken through the Food Regulation Standing Committee (FRSC), and will be discussed in more detail below.

NEPSS - The Food Safety and Surveillance Section also chairs the Steering Committee of the National Enteric Pathogen Surveillance Scheme (NEPSS), operated by the Microbiological Diagnostic Unit of the University of Melbourne. NEPSS receives approximately 60% of all *Salmonella* strains (the most common pathogen associated with

foodborne disease outbreaks) isolated by public health laboratories across Australia which result from human infection. Hence, NEPSS is the single most comprehensive source of information on this important pathogen nationally. In addition, NEPSS also receives isolates of other key pathogens, such as *E. coli*, *Campylobacter*, and *L. monocytogenes*. Currently, each of these strains is routinely screened for antibiotic resistance. This information is usually available on request, and is a key resource on the prevalence of antibiotic resistant pathogens. In addition, NEPSS is associated with international surveillance networks and receives information on antibiotic resistance bacteria which may potentially be introduced into Australia (that occurred in 2001 as a result of imported halva from Turkey that was contaminated with *Salmonella* DT104)

National Survey on Foodborne Human Pathogen Surveillance

As mentioned above, the Food Safety and Surveillance Section of Health and Ageing is currently conducting a national survey to determine the extent of foodborne human pathogen surveillance being undertaken by health and primary industry authorities in each jurisdiction of Australia. This is in response to a paper submitted to FRSC in March 2002. FRSC is composed of senior health and primary industry authorities, and is the peak national policy body which advises the Australia New Zealand Food Regulation Ministerial Council (ANZFRMC). The Department of Health and Ageing was asked to gather information on surveillance activities as part of a process to increase the sharing of surveillance information on foodborne human pathogens in Australia. This survey also includes questions on antibiotic resistance surveillance. Although yet to be finalised, there is wide variation in the monitoring of antibiotic resistant pathogens across jurisdictions. This information will be collated and presented at the next meeting of FRSC in late August 2002.

HAI (Nosocomial) related

An important component of the Government's response to the JETACAR was a review of existing systems of surveillance and monitoring of antibiotic resistant bacteria in the human and animal health fields and surveillance and control of health care associated (nosocomial) infections.

A study of the surveillance of healthcare associated (nosocomial) infections, *National Surveillance of Healthcare Associated Infection in Australia*, commissioned by the Department of Health and Ageing, was completed in 2001. The report is available on the *Implementing JETACAR* web site.

In early March 2001, this report was sent to members of the State Quality Officials' Forum and the Australian Council for Safety and Quality in Health Care (Safety and Quality Council), and its Data and Information Working Group. These bodies were asked to support a cooperative approach, with the Department of Health and Ageing, to healthcare associated infection surveillance in Australia. The report has been considered at subsequent meetings and, while no firm decisions have been made yet, the main themes of discussions are around data, standards and practice improvements. The Safety and Quality Council is deliberating on how it can add value to the activities at the Commonwealth and State and Territory levels, and broker national collaboration on healthcare associated infection.

A consultation process to develop a national system of surveillance of antibiotic resistance was commenced with an Antibiotic Resistance Surveillance Workshop on 4 May 2001. This was followed by consultation meetings in each State/Territory, between July and September 2001, to determine suitable options for a national surveillance system. Consultation meetings included representatives from State governments, the health and agricultural sectors, pharmaceutical industries and consumer groups.

The meetings were structured around the following five questions:

- What surveillance is currently done by your organisation;
- Why is this surveillance conducted – in respect of animals does surveillance target animal pathogens, zoonotic bacteria or commensals;
- What is the data/information used for
- Who has access to this data/information, (eg. Is it available to people only in your organisation, how often is it published);
- What are your future needs (eg. data/information, access).

The project examined current activities in each State and Territory and national schemes collecting antibiotic resistance data. Current literature and international experience were also considered and options for surveillance are being developed.

A draft antibiotic resistance surveillance and monitoring plan should be available for public consultation in 2002 on the Implementing JETACAR Website.

Recommendation 12 – Hazard Analysis Critical Control Point

Considerable work is already under way by Food Standards Australia New Zealand (FSANZ) and AFFA to investigate and document the Hazard Analysis and Critical Control Point (HACCP) procedures that are already in place to reduce microbial contamination in the food production chain to assist in implementing this recommendation. AFFA (including the Australian Quarantine and Inspection Service, (AQIS) and FSANZ met in mid-June 2001 to finalise the following joint report on relevant HACCP procedures currently in place.

The Departments work program assessing the costs, benefits, and efficacy of HACCP-based food safety programs is drawing to a close. The Department will provide a formal draft report to FRSC in August 2002. A final report will be presented to ANZFRMC in November.

Joint AFFA/FSANZ report on recommendation 12

The Commonwealth, State and Territory Governments and industry share responsibility for food safety. This includes the development, implementation and enforcement of policies and regulations.

Activities/Strategies: Government

Food Safety Regulatory Measures: The Commonwealth and the States and Territories share joint responsibility for the development of food safety regulation and policy. States and Territories have responsibility for the implementation and enforcement of these regulations by enactment through State and Territory legislation, including the Food Acts, Meat Acts and Dairy Acts. The State and Territory Food Acts include the requirement for the production of safe food for all food businesses, including primary producers. The food safety standards were developed by FSANZ at the request of Health Ministers as the means to ensure that this requirement is met. Primary food producers are able to use mechanisms, other than the food safety standards, to meet their obligation to produce safe food. These include industry-driven, market-driven or alternative regulatory arrangements.

(1) The Australia New Zealand Food Standards Code: FSANZ, in close consultation with State and Territory health departments, developed four food safety standards that introduce national food safety requirements for all Australian food businesses, other than primary producers. These standards represent a new, preventive approach to regulating food safety, with the onus resting with the food business to adopt and implement preventive safety measures.

Three of these standards have been accepted: interpretation and application; food safety practices; and general requirements and premises and equipment. These standards apply from 24 February 2001

and come fully into force as each State and Territory makes the changes needed to enact the standards under their own laws and regulations.

The fourth standard requires food businesses to develop and implement a food safety program based on HACCP principles. In October 1999, a decision on the national mandatory adoption of food safety programs was deferred pending more research into the efficacy and costs of food safety programs and the incidence of food borne illness in Australia. The Commonwealth Department of Health and Ageing is funding this work over a two-year period (2000-2002). It is intended that this information will be used to guide subsequent consideration of a national mandatory requirement for food safety programs. However, in the interests of national consistency, the food safety programs standard was adopted as a 'model' standard in November 2000. Under this arrangement, jurisdictions may adopt the standard according to their own timeframes and apply it to the types of businesses considered appropriate in their jurisdictions.

One State (Victoria) has already enacted legislation to require food businesses to develop and implement food safety programs.

FSANZ has been undertaking several projects to assist in the implementation of food safety programs. These include:

- Audit system to provide a nationally consistent approach to the enforcement of food safety programs;
- Priority classification for all food businesses, based on risk. The priority assigned a given food business will influence if, and by when, a food safety program is required as well as the initial audit frequency; and
- A document *Framework for the Development of Food Safety Program Tools* to guide industry bodies and other organisations in the development of simple, practical and cost effective tools to assist individual food businesses to develop a food safety program.

Primary Production and Processing Standards: Under new food regulatory arrangements that came into effect on July 1 2002, FSANZ, previously ANZFA now has the responsibility for developing Primary Production and Processing Standards. In the past this responsibility has resided with various bodies in the agriculture portfolios at Commonwealth and/or State levels. The transfer of responsibility for primary product standards to FSANZ will ensure that, for the first time in Australia, all domestic food standards are integrated and that food regulatory decisions are considered through a whole of chain 'paddock to plate' approach. This is also consistent with international approaches to managing food safety where it has been identified that in order to ensure safe food, responsibility must be taken at all points across the food chain. The new nationally enforceable Standards will form a new Chapter 4 of the *Food Standards Code* and will apply to Australia only. The primary industry sectors that the standards are expected to apply to include Seafood, Meat, Dairy, Grains, Horticulture, Honey, Poultry and egg production. It is envisaged the first primary production and processing standard will be developed for the seafood industry. The Standards will be developed using the best available science and technical expertise, an articulated risk assessment and risk management approach, and wide public consultation. The emphasis will be on food safety not food quality, and consideration may be given to the mitigation of food safety hazards using a HACCP based approach. The new Primary Production and Processing Standards will deliver outcome based, rather than prescriptive requirements and be consistent with Chapter 3 of the *Food Standards Code*. In keeping with the FSANZ's statutory requirements, the standards developmental process will involve extensive consultation with all primary industry sectors, stakeholders and interested parties and will also take into account commodity areas where primary production codes of practice currently exist.

(2) The ARMCANZ Meat Hygiene Standards: A number of standards for the hygienic production of meat, poultry and game meat have been developed through the Meat Standards Committee of ARMCANZ (now PIMC). The States are responsible for putting the standards into legislation and providing administrative arrangements for their enforcement in the domestic sector. The Commonwealth, through AQIS, has this responsibility for the export meat industry. HACCP underpins all the standards. It is envisaged the standards will eventually be reviewed as part of the development of Primary Production and Processing Standards under FSANZ.

Activities/Strategies: Industry

Industry-based Quality Assurance (QA) Systems: Risk based quality assurance systems, incorporating HACCP principles, form the basis of control of food borne hazards across food produced in Australia. Microbial hazards are addressed in company HACCP programs where such hazards are identified as being reasonably likely to occur in that food. Government and industry in Australia continue to evolve food safety controls based on contemporary understandings of HACCP and risk analysis as elaborated in international fora, particularly the Codex Alimentarius Commission.

Many primary industry sectors have made considerable headway in introducing quality assurance systems, including HACCP components, on farms. Examples include CATTLE CARE, Flockcare, Graincare, Freshcare, and SQF 2000 SeaQual. Additionally, all of the major supermarket chains in Australia require all of their suppliers to implement HACCP based quality assurance systems as a prerequisite for doing business.

Recommendations 13 and 18 – Research and development

In accordance with its terms of reference, the EAGAR will advise Government of future directions and priorities for research in the area of antibiotic resistance. To assist the EAGAR and to facilitate information exchange across the various sectors, the CIJIG has initiated an information gathering process about current research and development programs relating to antibiotic resistance. The CIJIG Secretariat maintains the information received to date, and will continue to provide it to the EAGAR and other interested parties.

The CIJIG has recommended that the EAGAR identify the top five priorities for antibiotic resistance research for the next 3 years. To address this, EAGAR are proposing the following:

- A small steering group (approximately 6 people) comprising representatives from the EAGAR, academia, industry and government agencies be convened. The Steering Group will identify priority areas for discussion and bring them forward to a workshop involving 50-80 participants to be held in the second half of 2002.
- The Workshop will aim to set clear research questions and identify appropriate organisations to accept responsibility for responses to the identified research questions.

The health related outcomes of the workshop will be forwarded to the NHMRC Strategic Research Development committee (SRDC) for their consideration.

The Rural Industries Research and Development Corporation (RIRDC) programs for chicken meat, eggs, honeybees and horses continue to invest significant shares of their respective research and development budgets addressing the following aspects:

- alternatives to antibiotics for growth promotion (Chicken Meat Program),
- alternatives to antibiotics for prevention and treatment of infections (including vaccines) (Chicken Meat, Egg, Honeybee and Horse Programs),
- rapid diagnostic tests (Chicken Meat and Egg Programs).

In excess of 30% of the RIRDC Chicken Meat Program's budget supports research and development either directly or indirectly addressing the issues identified in JETACAR Recommendations 13 and 18. In 2001-2002, the RIRDC Chicken Meat Program funded a significant study of the antibiotic resistance profile of bacteria found on Australian chicken products. The results of this study were reported in the RIRDC publication "Antibiotic resistance in bacteria isolated from poultry" (Publication No 01/105). In 2002-2003, the Chicken Meat Program of the RIRDC is addressing the issues of alternatives to antibiotics, by funding projects that aim to:

- develop techniques to more effectively control poultry diseases, such as vaccines, diagnostic tests, epidemiological procedures, biosecurity measures and nutritional manipulations; and
- develop strategies for improving the quality and utilisation of feed through the development of rapid nutritional quality testing techniques, identifying nutritional interactions with disease, investigating new or alternative feed ingredients and developing technologies that improve the rate and efficiency of lean meat deposition in meat chickens.

Progress on all relevant RIRDC projects, including details of projects to be funded in 2002-2003, can be found in the relevant industry section of the RIRDC Operational Plan on their website (<http://www.rirdc.gov.au>).

Recommendations 15, 17, 19 and 20 – Communication and education

Both AFFA and the Department of Health and Ageing have ongoing activities to promote better communication and education on antibiotic resistance matters, and are developing strategies for further improvements.

There are two main components to the area of communication and education. One is the ongoing professional and technical education of doctors and veterinarians on the prudent use of antibiotics in specific situations and the other is that of educating the general community about appropriate use of antibiotics. In the professional field (veterinary and medical), much of this information is already available but more effective and long term programs involving post-graduate education, universities, and professional associations in both the human and animal health areas, are needed.

The Australian Veterinary Association has, for example, already prepared a comprehensive list of the professional literature currently available to assist veterinary practitioners on this topic. However, carefully considered ongoing and regularly reviewed programs need to be designed to extend this information into the practicing professions, and into the peak industry bodies in the food producing animal sector.

Some extension of this work to food animal producers is already occurring. Peak industry organisations such as the Cattle Council of Australia have accepted responsibility for industry codes of practice and third party independent audit of quality assurance programs that involve chemical, including antibiotic, use.

The Department of Health and Ageing is continuing activities through the Quality Use of Medicines program with the assistance of organisations such as the NPS and the Pharmaceutical Benefits Scheme (PBS) aimed at encouraging attitudinal change in prescribing of antibiotics and to promote prudent use of antibiotics. As part of the JETACAR implementation process, the CIJIG has widely disseminated the JETACAR recommendations and is actively pursuing ways of improving the quality of information provided at both professional and consumer levels. Through the CIJIG the Population Health Division is collaborating with the PHARM committee and the NPS to examine community education options.

The PBS currently publishes a quarterly communication called 'Expenditure and Prescription'. This publication summarises statistics for drugs processed under the PBS during the previous 12 months. Typically, data for the anti-infective and antibacterial groups will be included, as well as high volume and high cost drugs. The latest copy can be obtained at <http://www.health.gov.au/pbs/pubs/pbbexp/index.htm>, or by phoning 02) 6289 7289, david.theodore@health.gov.au. Requests for data about specific drugs or groups of

drugs not published in "Expenditure and Prescriptions" should be directed to 02) 6289 7270 or tony.lawrence@health.gov.au

The NPS is a non-profit incorporated organisation independent of Government and the pharmaceutical industry. Consistent with quality use of medicines principles, its goal is to improve the health of Australians through appropriate and cost-effective prescribing of medicines. The NPS workplan includes strategies to improve antibiotic prescribing with the key messages being limited indications in upper respiratory tract infections; appropriate selection of antibiotics, when prescribing is warranted; the need for regular review of prescribing habits; and modifying patient expectations. Interventions already made by the NPS include the dissemination of written materials (via the NPS newsletter); mailed prescription feedback with educational material; self-audit and feedback (paper and computer-assisted); problem-based case studies; patient materials for practice use; academic detailing; seminars; and promotion of evidence-based guidelines and local development/implementation. Initial impact evaluation indicates that GPs participating in the NPS program were 40% less likely to prescribe antibiotics in response to acute tonsillitis and "strep throat", and make more appropriate drug selection for acute sinusitis. The NPS intends to maintain annual commitment to the above interventions, with an increased consumer focus. Currently, 35 Divisions of General Practice participate in NPS antibiotic activities. It is anticipated that present participation rates by GPs will increase significantly following an increase in the number of Divisions of General Practice that participate in NPS general programs.

There is still community misconception that antibiotics have a use 'as a precaution' or that they will aid recovery for a range of illnesses (for example, flu-like illnesses) that are caused by viruses rather than bacteria. The Quality Use of Medicines area of the Department of Health and Ageing, and the NPS are active in promoting better use of medicines, including antibiotics. For example, the current NPS consumer awareness campaign is "Common colds need common sense". A recent report from a research conducted by NCEPH found that by educating parents of young children and GPs, antibiotic prescribing could be reduced by more than one third in small group practices. This will be further investigated via a workshop in 2002 and further research through NCEPH.

The CIJIG will prepare a coordinated communication strategy for the next 3 years. A draft plan will be commented on by the EA GAR and will be made available for public consultation. Target groups include Governments, medical and animal health professionals, industry and particularly the general public. The National Summit on Antibiotic Resistance on 30 to 31 May 2001, provided an opportunity for initial input into this strategy as the theme of the second day was "Information and communication - moving forward". The Department of Health and Ageing, through EAGAR and CIJIG, will continue to consult with professional groups and consumers to develop useful and accurate information.

For further information and for copies of the reports mentioned in this document, please contact:

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