



The Independent State of Papua New Guinea (PNG)



ZOONOSES SITUATION

- ❖ There have been no official reports of any major zoonotic diseases or events since 2017 in PNG except for the suspected anthrax outbreak in 2018 in Madang Province which affected thousands of pigs, although not confirmed. No human cases were reported during this disease event. A similar unconfirmed event was detected in 2014 in Enga Province.
- ❖ Leptospirosis survey in cattle farms and abattoirs in PNG (2003-2006), ACIAR Project (Peter Wai'in, Simon Reid, Stan Fenwick & Ian Robertson)
 - 15 *Leptospira* serovars were detected from 1,106 bovine sera sampled from commercial cattle farms and abattoirs including *Leptospira* serovar hardjo
- ❖ Bovine brucellosis detection survey in PNG (2010-2013), Food and Animal Biosecurity Network (Andrew Tukana & Bruce Gummow)
 - 14 small and medium holder farms, N=4,054, n=535, est. 5% prev., all sera neg. for antibodies against *B. abortus* (indirect ELISA), 54 sera results reproducible between PNG Lab and Fiji Lab. Max. % of cattle that could have Brucella = 0.52%
 - 5 large commercial farms, N=33,000, n=294, est. 5% prev., all sera neg. for antibodies against *B. abortus* (indirect ELISA), 30 sera samples results reproducible between PNG Lab and Fiji Lab. Max. % of cattle that could have Brucella = 1%
- ❖ Bovine tuberculosis was controlled in the East Sepik Province through a stamping out programme in 1989. Tuberculosis prevalence in other parts of the country is unknown, but assumed to be very low or absent.
- ❖ Neglected zoonoses in PNG include leptospirosis, zoonotic arboviruses, anthrax, brucellosis, bovine tuberculosis, trichinellosis, Hydatid disease and cystercicosis
- ❖ The five priority zoonotic diseases in PNG include foodborne zoonosis, zoonotic arboviruses, leptospirosis, highly pathogenic avian influenza and bovine tuberculosis.
- ❖ Although rabies has never been reported or detected in PNG, recent collaborative work has identified potential high risk pathways for incursion into PNG along the land border. Risk assessments have also shown that current conditions in PNG are conducive for the spread of rabies if it entered PNG.



AMR: Progress and Updates

- ❖ The Papua New Guinea (PNG) Antimicrobial (AMR) National Action Plan (NAP) 2017-2021 is being finalized for Internal Policy Submission and then for launching by the National Executive Council (NEC) for 2019.
- ❖ Key government institutions involved in the Papua New Guinea (PNG) Antimicrobial (AMR) National Action Plan (NAP) 2017 – 2021:
 - Public Health Sector: The National Department of Health (NDH), Provincial Health Authorities (PHA), Daru General Hospital (DGH), Pharmaceuticals Services and Standards Branch (PSSB), Central Public Health Laboratory (CPHL)
 - Agriculture Sector: Department of Agriculture and Livestock (DAL), National Agriculture Research Institute (NARI) and National Agriculture Quarantine and Inspection Authority (NAQIA)
 - Environmental Sector: Conservation and Environment Protection Authority (CEPA)
 - Other Sector: Tertiary Education Institutions and Customs
- ❖ Key activities implemented jointly using a One Health Approach (OHA) to address the PNG AMR NAP 2017-2021 (unofficial) includes:
 - Establish and ensure governance, sustainable investment and actions to combat antimicrobial resistance
 - Improve awareness and understanding of antimicrobial resistance through effective communication, education and training
 - Strengthen surveillance, diagnostic capacity and research on AMR
 - Strengthen sanitation, hygiene and infection prevention and control across all sectors
 - Strengthen appropriate access and optimize the use of antimicrobials with prescription only
- ❖ Engaging the private sector, producers, consumers and general public via:
 - Develop awareness raising materials and conduct awareness activities
 - Promote effective sanitation and hand hygiene in the community setting
 - Develop simple, translated advocacy materials on the responsible use of antimicrobials for use (IEC materials)
 - Develop an educational programme for schools (all levels) on AMR and rational use with key targeted messages
 - Empower community health workers and other cadre of health workers to promote awareness in rural areas with appropriate messaging and language.
 - Develop targeted messaging to health-care professionals and health care students and strengthen university curricular for health professionals on AMR.
- ❖ In 2016, Papua New Guinea conducted its first national baseline survey of veterinary medicines and pharmaceuticals in Papua New Guinea
 - This involved 29 respondents from all four regions of Papua New Guinea including pharmacies (6), agriculture supply stores (3), veterinary clinics (2), commercial food animal production farms (14) and government institutions (4).
 - The overall veterinary antimicrobial usage (vAMU) based on OIE veterinary antimicrobial (VAM) calculations was 229Kg. The top VAM were penicillin (37%), sulphonamides (24%), tetracyclines (21%), aminoglycosides (8%), lincosamide / fluoroquinolones (4%) and macrolides / cephalosporins (1%).
- ❖ Importation of veterinary antimicrobials is regulated by the relevant biosecurity and veterinary competent authority through its import permit system which captures data about the importer, type of antimicrobials, quantities and method of application.
- ❖ Currently there is no known testing and data collection for antimicrobial residues in meat, poultry, dairy or aquaculture products domestically or for imports.
- ❖ Currently there is very little testing and data collection for antimicrobial sensitivity from environmental, hygiene or clinical samples from farms and abattoirs.
- ❖ The relevant government agencies for the agriculture sector have not conducted or been involved in activities for World AMR Awareness Week 2018.



ACCOMPLISHMENTS RELEVANT TO THE 2017 WORKSHOP RECOMMENDATIONS

The following actions have been progressed in-relation to the Recommendations for Member States (i.e. 3 Annex 2017 Tripartite Workshop Conclusions and Recommendations 3.2.1) from the 7th Asia-Pacific Workshop on Multi-sectoral Collaboration at the Animal-Human-Ecosystems Interface, September 2017, Manila, Philippines:

3.2.1 (3)

(i) OIE PVS evaluation of the agriculture sector in Papua New Guinea

- OIE Performance Veterinary Services (PVS) Evaluation Report, Papua New Guinea, March 2015
- OIE Performance Veterinary Services (PVS) Veterinary Legislation Identification Mission Report, Papua New Guinea, May 2015

3.2.1 (5)

Regional Influenza Pandemic Preparedness Project / Pacific Avian and Pandemic Influenza Task Force, Secretariat for the Pacific Community (SPC) and Pacific Public Health Surveillance Network (World Health Organisation), 2006 – 2013

Field Epidemiology Training Program, National Department of Health and World Health Organisation, 2013 to date.

Transport of Infectious Substances Training. National Department of Health and World Health Organisation, 2017 and 2018

3.2.1 (6)

- Development a PNG Emergency Animal Disease Contingency and Technical Plan (ERADICATE) and associated Technical Guidelines and Standard Operating Procedures for Rabies and NDV, March 2016 – Unofficial.
- Rabies Emergency Response Planning Workshop, 2017

3.2.1 (7) The Papua New Guinea (PNG) Antimicrobial (AMR) National Action Plan (NAP) 2017-2021 is being finalized for Internal Policy Submission and then for launching by the National Executive Council (NEC) in 2019.

Way Forward for Multi-sectoral Collaboration Exploring New Horizons

- ❖ The PNG Department of Agriculture has established the National Codex Committee which conducts regular meetings with various government agencies on various topics on food safety.
- ❖ The agriculture sector has undergone two separate evaluations by the World Organisation for Animal Health (OIE):
 1. OIE Performance Veterinary Services (PVS) Evaluation Report, Papua New Guinea, March 2015
 2. OIE Performance Veterinary Services (PVS) Veterinary Legislation Identification Mission Report, May 2015
- ❖ The National Agriculture Quarantine and Inspection Authority (NAQIA) developed a PNG Emergency Animal Disease Contingency and Technical Plan (ERADICATE) and associated Technical Guidelines and Standard Operating Procedures for Rabies and NDV – Unofficial.
- ❖ The National Department of Health has developed a PNG Antimicrobial Resistance (AMR) National Action Plan 2017-2020 – Unofficial (AMR Secretariat – National Department of Health).
- ❖ Papua New Guinea is one of three countries which has been selected as pilot countries for a One Health Country Plan support from the Food and Agriculture Organisation of the United Nations (FAO). A One Health roundtable meeting involving multiple government agencies from the human health, environment and agriculture sectors including regulatory bodies was conducted in Port Moresby on the 27th March 2019. The One Health Country Plan inception is being lead jointly by the Department of Agriculture and Livestock and the FAO.
- ❖ Despite past and current work being done by relevant agencies and regulatory bodies to address different aspects of one health in the country, there is no formal or legal central platform or forum to discuss issues and share information and data on (i) food safety issues, (ii) animal production diseases related to the environmental contamination, (iii) endemic and exotic zoonosis and (iv) antimicrobial resistance (AMR). It is anticipated that the One Health Country Plan inception will provide a formal and legal central platform and mechanism to address the issues of One Health. It is also anticipated that the launching of the PNG Antimicrobial Resistance (AMR) National Action Plan 2017-2021 will provide the formal and legal coordination mechanism to specifically address issues of AMR in Papua New Guinea.