[redacted]

Introduction

[redacted] is the largest country in [redacted] and the [redacted] in the world. it shares land borders with [redacted] to the west; [redacted]

The Veterinary Service of [redacted] is competent with a large team of veterinarians, paraprofessionals and other qualified specialists in appropriate positions-such as in laboratories and research. There are sufficient veterinarians employed by central and state governments. However, insufficient veterinarians operate at the field level. The shortages of field veterinarians contribute to a lack of supervision of veterinary paraprofessionals, poor disease surveillance coverage and outbreak investigation. A further limitation is the lack of the appropriate technical specialists in epidemiology, risk analysis and food safety.

India has developed [redacted] System), a risk-based approach to identifying and forecasting possible disease outbreaks likely to occur within a two-month period in all districts, but the [redacted] does not have any epidemiologists. In terms of passive surveillance, major concerns, that are not uniform state by state, are the lack of comprehensive field coverage especially in more remote and tribal areas, the lack of routine differential diagnostic testing of key syndromes (e.g. for foot and mouth disease (FMD) and highly pathogenic avian influenza (HPAI), the lack of sound outbreak investigations with identification of risk factors and tracing, and the limitations of the [redacted]

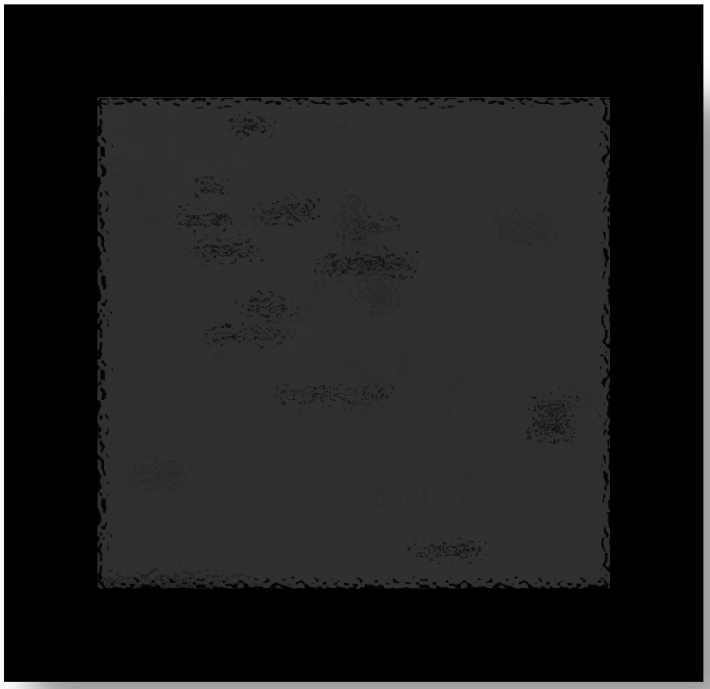
This IT system has been installed at 7,032 nodes at block level across the country. Animal disease information reported by veterinary hospitals, dispensaries, field veterinarians and veterinary paraprofessionals is collected

at block level and entered into [redacted], then validated by the district office, and again at the state level before being forwarded to the central level. The functionality of [redacted] is limited by lack of power and connectivity, theft of hardware, lightning and is focused on ‘list’ diseases only, which further limits its value as this results in the loss of potentially valuable baseline data on endemic diseases and syndromes, and therefore a loss of sensitivity for the early detection of unknown emerging diseases. Moreover, there is no reporting on wildlife as this fall [redacted] is focused on the only 45 diseases. Results of ante- and postmortem inspection of animals are not reported, and therefore are not being used effectively for disease surveillance. Few surveillance activities are undertaken at aggregation points such as livestock markets and slaughterhouses. Assumptions made on clinicals signs with no laboratory testing.

Active surveillance is also carried out for several economically important bacterial, viral, and parasitic diseases under [redacted]. The national disease control programmes (schemes) for FMD, PPR, HPAI, RP, BSE, brucellosis, CSF, have well-defined active surveillance programmes. States have their own funding and can develop their own active surveillance programmes in support of centrally led programmes. However, there is fragmented reporting of active surveillance data, due to different funding schemes and reporting obligations. Apparent underreporting of notifiable diseases [redacted]

There is no public access to disease reporting or the animal health status in each state through [redacted] the only source for this information [redacted] Coordination and management of the VS is generally strong with excellent ‘internal’ and “external” coordination.

[redacted]. The VS at all levels employ veterinarians and other professionals with university qualification.



There is no compiled list of staff from the different agencies involved at different levels, and the [redacted] have not provided data on the number of veterinarians and other professionals to WOAH. Veterinarians working on core VS missions of the central level is limited and insufficient in comparison with the workload for this country. [redacted] there may therefore be an issue with the high proportion of agriculturalist positions. VS activities are conducted by a large number of agencies making internal coordination extremely difficult. There is too little coordination between central-level agencies and a very weak chain of command from the central level to the field level. External Collaboration between these Departments on other zoonotic diseases and veterinary drug residues is very limited. Quality of veterinary education still needs to be improved, especially in some of the VEEs, since most veterinary undergraduates do not pass the [redacted] There is no uniform training for the paraprofessionals employed in municipalities.

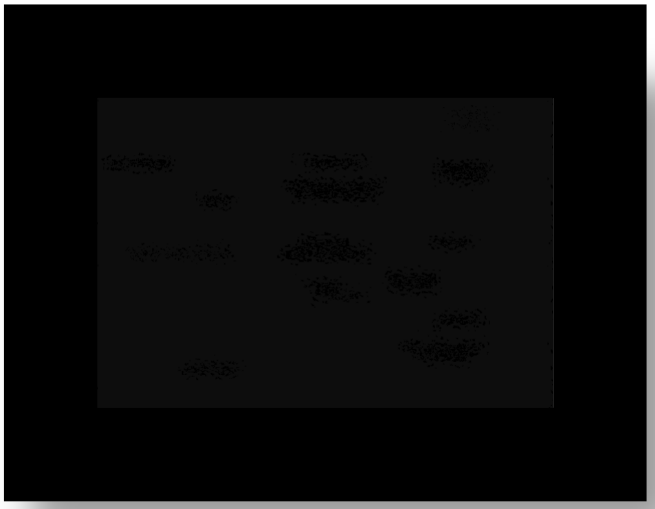
As for passive surveillance, [redacted] has developed the [redacted] as the official animal system for disease monitoring and reporting in the country, but it is not functional and doesn't work consistently. Standard procedures for notification [redacted] are very slow, and it does not consider any formal quick communication mechanism. Reporting chain, roles and responsibilities of the different administrative levels are not aligned. Field investigations are rarely conducted by official veterinarians and case investigations are poorly documented. Information collection and analysis is also very limited. [redacted] should incorporate information from ante and post mortem inspection into their epidemiological

surveillance databases, as well as laboratory results or the laboratory database and the animal health database should be link.

In terms of active surveillance, there are existing programmes for AI and FMD, which have been historically supported by external funding. As a result, there is no permanent core funding to support long-term surveillance. The information of other diseases, such as CSF and ND are scattered. Roles and chains of command are not well defined, and this impedes implementation, making compliance and follow-up very difficult. In general, information collation and analysis are poor, and no consolidated reports are produced. It is reported that during past years [redacted] has experienced a massive exodus of highly trained staff without planned replacements. This may lead to the loss of historical background data, technical leaders and weakened capacities.

[redacted]

Introduction



[redacted] is a developing country in Oceania, comprising the eastern half of the island of [redacted] and its offshore island in [redacted]. The country's geography is diverse with mountains and rainforests making it difficult to develop transportation infrastructure. Port Moresby ,is the capital city, and is not linked by road to any other major town.

The [redacted] is the veterinary authority, as primarily the state biosecurity agency. It has 22 provinces and [redacted] has placed regional veterinary officer (RVO) into four regions.

[redacted] suffers from a lack of basic infrastructure and human resources in VS, making it difficult to conduct field disease surveillance and epidemiology. Most of veterinary services works were implemented without the supervision of veterinaries by paraprofessionals (senior animal health officer and animal health officers),that is against the international standards. Their abilities are competent but lack core technical skills and needed to be trained on a regular basis.

There are no current animal disease control programmers due to the high health status, most resources are allocated as passive surveillance work.

VS can be divided into 4 parts：

Quarantine and movement control	Issue a "health certificate"
Wildlife	Collaborate with [redacted] for issuance of permits and certification. No capacity for wildlife health.
Veterinary public health	Meat inspection. Poultry are not regulated.
Laboratory	Only one lab with limited diagnostic capabilities.

Findings/gaps/issues	Suggestions
Shortage of veterinarians The limited skills and training veterinary paraprofessionals [redacted] disease investigation and the inspection and management of animal production and food safety.	Cultivate more veterinaries Establish formal program: communication, disease surveillance and first line outbreak investigations, animal welfare, principles and management of disease control.
Poor infrastructure Internet access is poor or absent Vehicles are order than 5 years replacement policy. Staff housing provided is in a poor condition.	Develop a five-year, capital investment program.
Loss of funding and budget pressures.	Find additional funds to support VS
Communication: Lack of coherent management of programs at the regional and local level. Poor communication with stakeholders. No coordination with department of health (for poultry slaughter.)	Increase liaisons between [redacted] and the province and district DAL. Establish a formal communication and work more closely with key sectors and to develop joint programs. Recruit communication manager with both a science and communication background.
Challenge of laboratory capability: Adequate Laboratory but need maintenance. High user pays charges and national shipping and courier costs. Quality of sample submission and testing	Improve networking with other laboratories and strengthen the capacity of (National Animal Health and Food Testing laboratory, NAHFTL) in PNG.

Outdated legislation No control of the import and use of veterinary medicine No risk assessments of vaccines No animal welfare standards	Develop a program of extension and enforcement of the legislation and regulations to increase compliance with international standards.

Finding/advantages	Suggestions
[redacted] participants woah codex and SPS meeting and made an agreement with external partners. (FAO, Fleming Fund)	Still need more interaction with stakeholders for changes to be put into practical application.

[redacted]

Introduction

[redacted] a tropical island country with low middle income in [redacted] This country had gone through a series of civil wars before becoming an independent country from [redacted] As a result, most of the infrastructure were damaged and urgently needed to be reestablished.

The Veterinary Services operate under the [redacted] and are seriously under-resourced. There are insufficient veterinarians centrally to design, deliver and manage programs, and an absence of any district veterinarians to provide veterinary management in the field. The ability to deliver coherent programs has been limited by inadequate funding, poor faculties and limited equipment. The field veterinary services are conducted by [redacted] from [redacted] and livestock technicians operating in the subdistricts without the supervision of veterinarians. Animal health surveillance and response is provided by veterinary paraprofessionals. The current field programs focus on hemorrhagic septicemia, classical swine fever and Newcastle diseases, and it has been suggested that a brucellosis control program be included in next 5 years. It is also to be noted that rabies is considered the highest risk in emerging diseases as it is present on some neighboring islands of [redacted]

The current list of 'notifiable' diseases should be reviewed and updated with clear case definitions for confirmatory testing at the [redacted]. The Animal Disease Response System should be further developed to include 'clinical signs' as a search criterion, to trigger surveillance alerts, and allow for the conducting of investigations, and also designate the investigations to the relevant parties. Currently data is entered into the Animal Disease Response System database from paper reports delivered to the [redacted] in Dili- this database should be developed to allow district level entry of data. SOPs should be developed that define the reporting system ('chain of command'), and the timelines required for the reporting of significant animal health events to the [redacted]

Findings/gaps/issues	Suggestions
Shortage of veterinarians (low remuneration paid) The limited skills and training for veterinary paraprofessionals [redacted]	Recruit students to form part of the VS Imbalance of pay should be addressed through the [redacted] Establish a continuing program Clear SOPs and guidelines to monitor performance against established standards
Poor infrastructure over-crowded and broken workplace unreliable power supplies little or no internet access lack of cold chain equipment on border inspection	
Insufficient funds no funding secured for an emergency response no budget for veterinary staff, equipment and operations at the district clinics	
Communication: limited communication capacity with no specific plan, dedicated department or staff little external consultation authority of slaughterhouse is not defined	Increase liaisons between the [redacted] to coordinate risk mitigation activities. Establish a formal communication and work more closely with key sectors and to develop joint programs. Establish inter-ministerial working group as a coordinating committee. Establishing an official contact point for communication, a 'communication

	officer Define clear roles and responsibilities should be developed and documented
Challenge of laboratory capability: No laboratory quality assurance program Lack of funding	Develop staff skills and competence Strengthen laboratory quality assurance Laboratory should support quarantine requirements
Outdated legislation Legislation for veterinary statutory body No defined veterinary standards No Imported medicine and biologicals Legislation for Animal quarantine	Veterinary Association sets standards and is allowing for para-professions registration. Draft legislation to international standards ready but not yet implemented enforcement of legislation, along with penalties Develop international certification and sanitary agreements with trading countries and Transparency of animal health status reporting to international agencies.