BUILDING AUDIT AND RESEARCH CAPACITY IN THE PACIFIC ISLANDS IN THE AREA OF REPRODUCTIVE HEALTHCARE

A partnership between the Pacific Society for Reproductive Health (PSRH) and the Pacific Women's Health Research & Development Unit (PWHRDU)

Alec J Ekeroma FRANZCOG, MRCOG, MBA
Head, Pacific Women's Health Research & Development Unit
Middlemore Hospital, Auckland

Building Audit & Research Capacity in the Pacific Island Countries

EXECUTIVE SUMMARY

Purpose:
This discussion paper provides the Pacific Society for Reproductive Health and other key stakeholders of reproductive health care in the Pacific information and a framework to build reproductive health research capacity in the Pacific islands. It suggests a way forward to improve audit and research capacity with an implementation plan for the stakeholders' consideration and action.

Background:
More audit and research could be performed in the Pacific Island countries (PICs) to inform decisions in resource allocation, service delivery and patient care. The need for research capacity building in the region was highlighted at a recent regional meeting called by the World Health Organisation (WHO) and specifically in reproductive health care at the 2007 conference of the Pacific Society for Reproductive Health (PSRH).

There are many reasons why there is sparse audit or research activity in the region which is in the main associated with the lack of resources, systems and skills. A search of the literature has identified barriers to research in developing countries such as the PICs and strategies to address those barriers. The proposed framework for developing research capacity acknowledges current research systems, available resources and existing agencies for partnerships. These partnerships, such as that between the PRSH and the Pacific Women's Health Research & Development Unit (PWHRDU), are important in establishing a supportive infrastructure that will assist research efforts and sustaining research capacity development.

Recommendation:
It is recommended that the Pacific Society for Reproductive Health and all stakeholders in reproductive health care in the Pacific discuss this paper and support the attached framework and workplan to build research capacity in the Pacific in the area of reproductive health.

Originator of report:
Alec Ekeroma, FRANZCOG MRCOG MBA
Head, PWHRDU

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Background:

The development of sound health policy and their successful implementation are grounded on accessible and robust research information. Evidence-based health policies are important at all levels of the health system and more so in developing countries where resources are limited. It is well known however that very little research is performed in developing countries including the Pacific Island Countries (PICs). A lack of political will, technical knowledge, research systems, workforce and finances are key factors that stymie the development of research capacity in developing countries.[1] Mapping of health research systems in 15 Pacific countries found a lack of policy on research with only a few having defined health research priorities and research personnel.[2] There is a growing realisation however that research is needed and regional agencies have developed research tools and systems to assist developing countries develop some research capacity.

The chronic under-resourcing of research activities stems from the lack of appreciation at the political and administrative levels in the important role research information plays in the shaping of policy and delivery of quality national health services. International and regional agencies such as the United Nations Population Fund (UNFPA), World Bank, World Health Organization (WHO), United Nations Children's Fund (UNICEF) collects defined health outcome data that has informed the development of national health policies which are usually dictated by the donor agencies.

Basic data collection is performed routinely in some of the PICs but this data is variable in completion and accuracy. Effective use of this data to inform funding priorities and improvement of services should be a first step to vary from country to country. The data considered incomplete, may then not be used or considered in policy formulation which tend to perpetuate a culture of "research-unimportance". This negative culture permeates organizations resulting in the absence of systems that encourages clinical research or local audit activities. The word "research" scares people because of the association often made with sophisticated tools for analysing data, and the perceived burden of writing the research report and sharing the findings.[3]

A framework is needed to develop processes and systems that will ensure the goals, and objectives are clear, key stakeholders and resources are identified, and implementation plans are realistic and sustainable. Any new framework should be built with what is available in terms of policies, priorities, agencies, systems, infrastructure and personnel. The framework takes into account the existing challenges that constrain research in the Pacific and also takes into account those systems that have worked elsewhere.

The author presented a paper at the PSRH 2007 conference in Apia outlining the need to develop reproductive health research capacity in the Pacific countries. The paper explored the possibility of building capacity in research through a partnership

[1] COHRED: What factors influence health research agendas in developing countries? 2006
[2] WHO R: Consultation on strengthening health research capacity in the Pacific. 2007
[3] Rufina Latu – personal observation

between the PSRH and the Pacific Women's Health Research & Development Unit (PWHRDU). The paper was well received leading to the PSRH elevating the need to develop research capacity in the Pacific to an Action Plan. The Plan calls for the development of research skills through assistance with research and audit projects and mentoring. Dr Wame Baravilala, Secretary General of PSRH presented a paper at the same conference on data published by regional agencies such as the World Bank, World Health Organisation (WHO), United Nations Childrens Fund (UNICEF), and the United Nations Population Fund (UNFPA). Most of the data that forms the reports by these agencies are rough estimates and are used by regional agencies and governments for priority setting exercises.

Principles:

The PSRH and PWHRDU will:

- Make audit and research development in the Pacific a high priority
- Collaborate with Pacific countries and other regional agencies
- Use any existing models, frameworks and resources
- That capacity development start small and incrementally
- Support training in research/audit and leadership skills
- Coordinate activities
- Priority be placed on research training and data collection using web-based solutions;

Joint Approach to Strengthening Audit and Research

The PSRH is registered in New Zealand as a Charitable Trust and its aims are to improve neonatal and maternal outcomes by promoting and supporting reproductive health initiatives. Given the broad dimension of reproductive health, the Society seeks to address both clinical and preventive aspects of reproductive health. The involvement of clinicians and public health professionals, including doctors and nurses demonstrates the interest of the Society in taking a holistic approach to address reproductive health.

The PWHRDU is a research unit of the Faculty of Medicine & Health Sciences of the University of Auckland and its aims are to improve the status of Pacific women's health through informative research and development of the reproductive health workforce. Development of a Pacific research capacity framework which includes the development of processes and systems that are realistic and sustainable sits well with the PWHRDU's objectives.

The PSRH and PWHRDU in collaboration with international and regional agencies need to impress on country leaders the importance of research. Strong national health research systems are needed to improve health systems and attain better health standards and status. The WHO has articulated clearly the need for developing countries to indigenize health research systems and to build research capacity.[4] Strengthening research capacity is one of the most powerful, cost-effective, and sustainable means of advancing health and development.[5]

Research Importance

Research evidence is important for the following reasons:

1. Patients

[4] WHO R: Consultation on strengthening health research capacity in the Pacific. 2007

[5] White F: Capacity-building for health research in developing countries: a manager's approach. Rev Panam Salud Publica 2002;12:165-172.

Evidence is needed in developing clinical protocols and best practice guidelines. Audit evaluates whether treatments or processes for the patient's care works effectively.

2. Services
Service delivery and implementation of care policies will be informed by access and acceptability evidence. This could be at a clinic or on a population level.

3. Resources
Evidence is needed for prioritization and allocation decisions so finite resources are used wisely.

Factors that lead to poor research output

There are many factors why research output is low or research is not valued in many developing countries, including PICs. The following list summarises these:

1. Low status of women and women's health
2. Low priority
3. Lack of research skills
4. Lack of human resources
5. Lack of funding
6. No infrastructure
7. No research culture
8. Resistant to change

It is important therefore that an enabling environment for research is created top down and involving communities. The countries leaders, health leaders at the Ministry, hospital and clinic leaders need to value research and enable research through:

1. leadership encouraging research
2. adequate funding
3. research training
4. career structure for researchers
5. critical mass of research
6. infrastructure to encourage audit and research
7. information access
8. linkages between research and policy[6]

One can also initiate research bottom up if top down approach is tied to too much bureaucracy. Small scale manageable research can be initiated at community level for as long as interest, commitments and enabling environment are present.[7]

Enabling Factors for Audit & Research

These factors need to be addressed in the PICs to create a research-rich environment.

1. **Leadership encouraging research**
   Leaders at policy and strategic positions must be encouraged to include research in all policy and strategic documents. When this happens, it cultivates a culture within organizations that research is policy.

[6] Lansang MA, Olveda RO: Institutional linkages: strategic bridges for research capacity strengthening. Acta Trop 1994;57:139-145.
[7] Rufina Latu – personal communication

Leaders at operational level should include research outcomes as deliverables within their departments and as part of service delivery requirements.

Clinical leaders should view clinical audit and research as part of clinical governance and good practice.

2. **Adequate funding**
   Governments need reminding that the WHO has a resolution that 2% of national health budgets and 5% of development aid should be directed towards research funding. This has not always been the case in many countries as they direct funds to meet short falls in other areas.

   What PICs governments can also do is to foster the development of research collaborations with external funders and research institutions. Funding pilot projects in developing countries is an effective practical and useful tool for training new investigators in research techniques.[8] Funders and governments should be encouraged to build a funding component for audit, evaluation or research into every service specification or contract.

3. **Research Training**
   Studies have shown that local training in research methods is effective[9] and some of this training has been conducted in collaboration with international research institutes. Courses have covered basic epidemiology and biostatistics.

   Training for PICs can be arranged and provided by regional agencies such as WHO or other academic institutions. Capacity training activities can also be coordinated by the PHRC, SPC, UNFPA, PWHRDU, etc

4. **Career structure for researchers**
   Those who perform research or audit need to be recognized for their efforts. Incentives to perform research or a reward system that acknowledges good research need to be created in PICs tailored to the available resources of each country. The reward system can be in better facilities and a career structure that acknowledges the importance of research contribution.[10]

5. **Critical Mass of research and researchers**
   In order to sustain efforts in research that are measureable, there needs to be continuous professional and skill support available to new researchers and researchers working in isolation.[11] The research institutions in the Pacific including the PWHRDU, can provide the assistance required to PIC researchers via web tools and emails.

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[8] Felknor SA, Delclos GL, Gimeno D, Wesseling I, Monge P, Chavez J, Quintana L, Schulze LJ: Funding of pilot projects in Latin America: a tool for capacity building in occupational health research. Int J Occup Environ Health 2006;12:408-414.

[9] Goto A, Nguyen TN, Nguyen TM, Hughes J: Building postgraduate capacity in medical and public health research in Vietnam: an in-service training model. Public Health 2005;119:174-183.

[10] Hyder AA, Akhter T, Qayyum A: Capacity development for health research in Pakistan: the effects of doctoral training. Health Policy Plan 2003;18:338-343.

[11] Andruchow JE, Soskolne CL, Racioppi F, Bertollini R: Capacity building for epidemiologic research: a case study in the newly independent state of Azerbaijan. Ann Epidemiol 2005;15:228-231.

6. **Infrastructure**
   The author has coined the 8Ps in research infrastructure development and these are:

   i. Policy – research culture and organizations
   ii. Priority – by local people
   iii. Property – office, computer, transport
   iv. People – indigenous capacity
   v. Power – ownership of research in local people
   vi. Process (and systems) – surveillance reporting, ethics
   vii. Partnerships – with communities and stakeholders
   viii. Practice-based research networks

7. **Information access**
   Information access is important for research to flourish and these include access to information systems and processes, data collection and storage, shared data protocols and access to the internet with a wide bandwidth.

8. **Link to solutions and care**
   Research and audit activities are more meaningful and rewarding if they are linked to the health priorities of countries or their service's needs. Therefore, the primary focus of research in the Pacific should be on practice improvement and finding solutions for local problems. There is also the increased chance that the research will have a better chance of attracting funding.

Objectives of the research framework

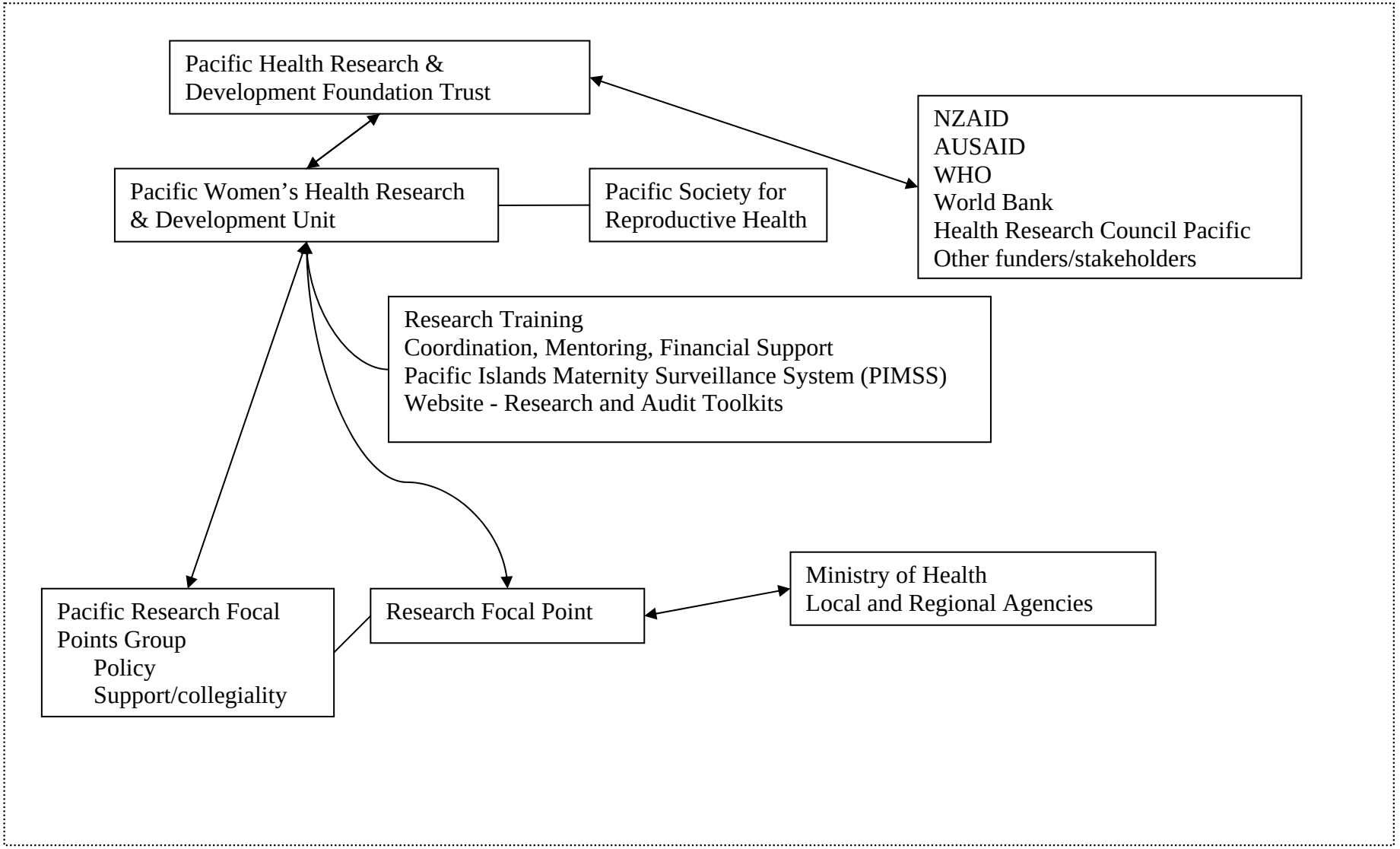
1. For a sustainable research agenda, the PIC's governments and regional agencies must be involved in the process and become major stakeholders in the capacity building process. That decisions are inclusive of each PIC's health priorities and agendas.
2. That clinical research leaders are appointed in all PICs to lead research in women's health in their countries. Leaders are encouraged to use research and audit in planning, management, monitoring and evaluation activities and decisions. In order to maintain research activities and momentum, national research leaders need to be incentivized. Research outcomes are monitored including the number of clinicians participating in practice improvement activities.
3. That capacity development start small and incrementally with all initial projects focusing on solutions to clinical problems and in a few PICs to start with.
4. Training in research/audit and leadership skills be undertaken to improve capacity and clinical governance. That ownership of projects and data are the national FRP and their governments with appropriate acknowledgement of support.
5. Improve and utilise routinely collected clinical and other data by encouraging improved systems.
6. That a responsive capacity-building plan individualised for each country based on the resources needed and priorities/gaps in national health care.
7. Priority be placed on research training and data collection using web-based solutions. (An example of this is the Pacific Open Learning Health Net www.polhn.com which promotes eLearning courses to Pacific health workers. It may be possible to link in with this initiative which is also connected to regional research institutions to offset setup costs).

8. Research capacity building focuses on research problem identification, dissemination and application of research findings.[12]

A framework for developing reproductive research capacity in the Pacific

The author has developed the framework below for discussion after having performed a literature review of the various models and discussion papers especially from the Pacific region. Many initiatives on building research capacity have been discussed by regional agencies and PIC governments although none of that included in the draft framework. Agencies involved in the regional efforts and may be contacted for assistance in developing this further are: the WHO regional office, UNFPA, South Pacific Commission, Fiji School of Medicine, Pacific Health Research Committee, NZ HRC and others.

[12] Trostle J, Simon J: Building applied health research capacity in less-developed countries: problems encountered by the ADDR Project. Soc Sci Med 1992;35:1379-1387.


Pacific Health Research & Development Foundation Trust
NZAID
AUSAID
WHO
World Bank
Health Research Council Pacific
Other funders/stakeholders
Pacific Women's Health Research & Development Unit
Pacific Society for Reproductive Health
Research Training
Coordination, Mentoring, Financial Support
Pacific Islands Maternity Surveillance System (PIMSS)
Website - Research and Audit Toolkits
Pacific Research Focal Points Group
Policy
Support/collegiality
Research Focal Point
Ministry of Health
Local and Regional Agencies

Explanatory Notes for the draft framework:

The Pacific Health Research & Development Foundation Trust (PHRDFT)
The PHRDFT is newly formed chartable trust with seven trustees. The Trust is owned by the Pacific community in NZ and its goal is to support and promote research initiatives, workforce programmes and policies that will benefit the health of Pacific people in NZ and the Pacific. The Foundation will engage with Pacific researchers and professionals across disciplines and will seek funding to deliver on its goal.

The Pacific Research Focal Points (PRFP)
The PRFP is a new cadre of research worker that will be appointed and trained (if applicable) to lead maternity research in his/her country. The PRFP will improve Pacific research workforce capacity and she/he will be nominated by his/her Ministry of Health. Linkage to Pacific governments is important for they will be major stakeholders in the process and they would provide local support for the PRFP to carry out their work.

The role of the PRFP in establishing a support and enabling network is crucial to the success of the project. The PRFP will be able to identify and prioritize research needs of his/her country, region or department. Once research projects are agreed, the PRFP will be forwarding a monthly datasheet for each research project to the PWHRDU for collation and analysis. The datasheets may be sent by email, fax or post and those with the capability can enter them online.
The focal point model in the Pacific has and is being used by the PSRH with variable success. The PRFPs will be motivated and resources with tools necessary to assist them in their task.

The PRFP and audit leaders, to be effective, must have a link or are in management, have influence, must be cultivated and resourced and have had some training. The PRFP would emphasise that every clinician is a researcher and that initially, they concentrate on the small “r”, that they focus on practice improvement and practice reviews (eg. perinatal mortality meetings).

The Pacific Islands Maternity Surveillance System (PIMSS)
The PIMSS is a system that will monitor the collection of data from multiple sites on specified conditions that on analysis will inform clinical practice and funding policy. It is closely modeled on the United Kingdom’s Obstetric Surveillance System (UKOSS) which has provided an excellent epidemiological collection of data that has informed clinical practice.[13] Some Pacific countries are small and may not have the number of clinical cases of a particular condition to make it useful for analysis. Yet data collected from other Pacific countries with similar resource and social constraints will provide the epidemiological numbers necessary for meaningful research analysis.

Many countries have sentinel practice systems and if the PIMSS was developed further, it could be used to provide surveillance reports on illness and diseases that have the greatest impact on the population’s health and wellness in the PICs.

The Pacific Research Toolkit
Templates and certain programmes for the conduct of audit and research projects will be made available to the PRFPs and will be on the PSRH and PWHRDU websites. Links to relevant resource websites will also inform/assist the PRFPs in learning research and audit methods.

[13] Mayer. D TJ: Advances in epidemiology help clinicians in practice. BJOG 2007;114:1335-1336.

PSRH/PWHRDU WORKPLAN: BUILD RESEARCH CAPACITY

SPONSORS

Lead Sponsor: Alec Ekeroma Co-sponsor: tba

KEY PROBLEM:

Lack of research in PICs

Health professionals in PICs countries need assistance with audit and research projects

PROJECT SCOPE:

A framework and work plan to build research capacity in the Pacific

DELIVERABLES:

1. A discussion paper detailing barriers encountered by health professionals in the Pacific and how those should be addressed to create a research culture around clinical governance.

2. A framework that can be applied by health professionals and decision-makers considering audit and research activities.

3. A work plan to foster capacity in audit and research

STATUS:

A discussion paper, framework and work plan has been developed.

POSSIBLE NEXT STEPS:

Approve framework

Trial framework

MILESTONES:

Date:	What/By Whom
12 December	Appointments of Research Focal Points