

## Success and lessons learned from DDM training in Solomon Islands

### Introduction

At the request of the Ministry of Health of Solomon Islands in 2008, field epidemiology capacity building was undertaken by the Secretariat of the Pacific Community (SPC) in collaboration with other Pacific Public Health Surveillance Network (PPHSN) partners as an in-country Data for Decision Making (DDM) training programme. Funding for the delivery of the training by PPHSN focal point, SPC was provided by the Pacific Regional Influenza Pandemic Preparedness Project (PRIPP) which has long-term goals of improving surveillance and response capacities in Pacific Island countries and territories.

The DDM training in Solomon Islands was a success. Overall, 14 out of 26 formal candidates graduated with a Postgraduate Certificate in Field Epidemiology. During their training, they recognised and investigated an outbreak of diarrhoeal disease (see article in this bulletin).

### About DDM in the Pacific

In 2005–2006, PPHSN partners started to conduct DDM training in the Pacific region. DDM is a Pacific model of the Field Epidemiology Training Programme (FETP) that builds surveillance and response capacities, meeting core capacity requirements under international health regulations (IHR) 2005.

Trainees remain 'in-country' for both the theoretical training (delivered in several one-week workshops) and the supervised field projects that provide 'learning by doing' experience, complementing the theoretical component.

The DDM training is open to all levels of health professionals meeting Fiji School of Medicine (FSMed) postgraduate training entry requirements. Some take the complete programme (formal candidates), while others (auditing candidates) sign up for individual courses that are of particular relevance in their work. The training programme is structured in a progressive, step-wise manner that provides different levels of post-graduate qualifications: certificate, diploma and masters. On completion of the full programme, candidates will have gained core competencies in several knowledge domains — epidemiology, basic biostatistics, communications, information technology, communicable diseases, leadership and management — to a level adequate for public health surveillance and outbreak response. They will also be sufficiently equipped to undertake some basic health systems or operational research, in addition to analysing and making sense of health system-generated data.

Each course is delivered and assessed by epidemiologists or specialists in the region through PPHSN partners' collaboration. The scheduling of courses is decided by the country undertaking the training.

Similar approaches for field epidemiology capacity strengthening have been successfully



undertaken in a number of countries globally through FETP. In the Pacific, four countries — Commonwealth of Northern Mariana Islands, Guam, Solomon Islands and Fiji Islands — have benefited from this training so far. Only the latter two have had their training accredited by a training institution; the Fiji School of Medicine accredited the DDM training as a Postgraduate Certificate in Field Epidemiology.

### **Success and lessons learned from the Solomon Island experience**

The Solomon Island training directly benefited 26 formal candidates (11 females and 15 males) and a number of auditing candidates for different courses. The final course delivery was completed in November 2008. However, the final project assessment had to be re-scheduled from the middle of 2009 to November 2009 due to the outbreak of the pandemic H1N1 in June/July 2009.

Overall 14 (four females and ten males) out of the initial 26 formal candidates were awarded a Postgraduate Certificate in Field Epidemiology. Completion and success rates would have been higher, but one candidate dropped out after successfully completing the first course due to work commitments, and four high-performing candidates were selected to study overseas for a Masters in Public Health programme (or equivalent): two went to Australia, one to Hong Kong and one to Japan. They left before their project assessment; the opportunity to graduate depends on submission of a project report and a presentation assessment. These four candidates had passed all four earlier courses. The other five non-graduating candidates can graduate by completing certain course requirements and having their surveillance projects assessed. One just needs to do the online Outbreak Investigation course from FSMed to graduate, another has to do the Outbreak Investigation course and also submit a surveillance project, while three others have to pass two courses and the project in order to graduate.

This makes the success or completion rate of 66% (attrition due to leaving to study overseas excluded) or 54% including all formally enrolled candidates. This is a commendably high rate of completion for this kind of training, considering there is no full-time supervisor on the scene to support the candidates' work and study.



The Fiji School of Medicine awarded the qualifications in 2009 but the graduation ceremony in Solomon Islands could only be held on 16 August 2010 due to the prolonged H1N1 pandemic 2009 which needed the services of many Ministry of Health personnel.

**Table 1. Numbers of candidates and the success rate in each course in Solomon Islands DDM training**

Training course	Date of delivery in country	Number of participants	Resource persons	Number (Percentage) passed/ success	Pass by gender
Introduction to Field Epidemiology ( FE711)	5–9 May 2008	29 total candidates 26 took assessments 3 audited	Dr Narendra Singh (SPC)	22 (84%)	9 females and 13 males passed
Computing for Public Health Practice FE715	14–19 July 2008	25 candidates All assessed	Dr Justus Benzler (SPC) Michelle Mcpherson (ozfoodnet)	23 (95%)	8 females 15 males
Public Health Surveillance FE712	11–15 Aug 2008	26 candidates 24 assessed 2 absent	Dr Narendra Singh Dr Sonia Harmen (JCU) Dr Tom Kiedrzyznski	22 (91%)	8 females 14 males
Outbreak Investigations FE713	3–7 Nov 2008	26 candidates 3 audited 5 absent 21 assessed	Dr Narendra Singh Dr James Wangi (SPC)	19 (90%)	5 females 14 males
Surveillance Projects FE714	10–14 Nov 2008	23 attended workshop	Dr Narendra Singh	Continuing (see below)	
Surveillance Project ASSESSMENT	17–18 Nov 2009	17 presented	Dr Ilisapeci Kubuabola (FSMed) Tony Kolbe (SPC) Dr Narendra Singh	15 (88%)	5 females 10 males
<b>OVERALL ASSESSMENT (all five courses)</b>	<b>Fiji School of Medicine 2009</b>	<b>15</b>		<b>14 passed overall to graduate (~54%)</b>	<b>4 females 10 males</b>

### Lessons

Whilst formal evaluation of this training is currently under way, there are some important lessons learned from the Solomon Islands DDM training:

1. It is clear that if we have reasonable funding, field epidemiology or DDM training is possible in the region. The human resources are available in the PPHSN to conduct the training but funding is needed to mobilise them in time.
2. The commitment of the health authorities in PICTs has to be unshakeable and they need to be keen on seeing improved surveillance and response work for communicable and other diseases. Then the training, alongside health system adjustments, is likely to produce highly desirable results.

3. On the health system front, senior health ministry officials also increasingly appreciated the need for appropriate resources for setting up proper communicable disease surveillance. Already a lot of work is under way to improve this.
4. By doing training in-country, larger numbers of health workers benefit and there is evidence that it has a direct impact on their practice. In the Solomon Island DDM, the students recognised an outbreak of diarrhoeal disease from outpatient data and went ahead to investigate. Candidates' feedback also indicates their enthusiasm at being able to make sense of their data and they were able to present them using IT technology.
5. DDM training requires a local coordinator and/or a local supervisor on a full-time basis. This allows easier follow-up work.
6. The project requires full-time coordination from a centre (e.g. SPC) with adequate support if we intend to spread this capacity building to other PICTs rapidly. It needs better communication facilities as well, so that candidates can access the central/SPC coordinator directly, with or without local assistance.
7. The DDM candidates work on projects and their work must be properly supervised to improve the quality of the training. Local capacity is limited, so supervisors have to come from the coordinating centre/SPC. Because there are many candidates, the supervisors need to make prolonged visits to the country. Adequate funds are required to cover the cost of this supervision from the centre/SPC.
8. There is a need to improve access to electronic and print resources in PICTs. Candidates are at a disadvantage when they cannot access the information they need for their work. Internet access is complementary to the Pacific DDM model of capacity building. Using Pacific Open Learning Health Net (POLHN) centres is one option for candidates in urban centres in-country, but provincial candidates would benefit by having a laptop and flashnet or other web access facility.

These lessons build on similar lessons learnt from the Saipan training experience in 2005.<sup>1</sup>

## Conclusion

With improved local supervision and funding, DDM training can be successful in PICTs in meeting the epidemiology capacity needs as demonstrated by the Solomon Islands experience. This experience has once again demonstrated that field epidemiology capacity building can be undertaken in PICTs despite limited resources, using the Pacific model described above.

## Acknowledgement

The author wishes to thank the Solomon Islands Ministry of Health personnel — Dr Lester Ross, Dr George Maleofoasi, Dr Divinal Ogaoga, Dr Carl Sasauira and Bakai Ikoba — and

---

<sup>1</sup> See article published in Inform'ACTION 24 available at <http://www.spc.int/phs/ENGLISH/Publications/InformACTION/IA24/Lessons-DDM-training-courses.pdf>



the first cohort of Solomon Islands DDM students for their unwavering support and assistance. In addition, the author expresses his appreciation and gratitude to; Dr William Adu Krow (WHO country liaison officer) for his keen interest in the programme, to the PPHSN partners for their assistance in teaching, and to the Fiji School of Medicine for the graduation. It was a medical milestone in the history of Solomon Islands.

**Dr Narendra Singh**

Pandemic Preparedness and Training Specialist  
SPC

