An update on cervical cancer screening in Vanuatu

Emma R Allanson, Houston, USA; Vera Velanova, Brisbane, Australia; Ian H Frazer, Woolloongabba, Australia; Margaret McAdam, Brisbane, Australia, Woolloongabba, Australia and Cervical Cancer Foundation (Logistics Support), Vanuatu Ministry of Health, Sullivan Nicolaides Pathology, Frazer Family Foundation

The Republic of Vanuatu is a lower middle income country in the Pacific Ocean comprising 83 volcanic islands with a population of around 300 000.¹ The incidence of cervical cancer in Vanuatu is estimated to be around 100 per 100 000 women,² with an average age at diagnosis of 44 years and an average age of death from the disease of 45 years.³

Initial pilot studies for cervical cancer screening began in Vanuatu in 2006,² and a formalized screening program has been in place since 2008, executed by a committed and enthusiastic group of local nurses and doctors who are supported by a locally trained cytopathologist alongside volunteer support from Australian pathologists (from Sullivan Nicolaides laboratories). Since 2015, cervical screening has largely taken the form of cytological screening and/or human papillomavirus (HPV) testing, with concurrent dedicated data collection related to the program. Here we present an update.

From January 2015 to June 2019, 13 933 (19.9%) of the 70 063 eligible women (aged 20–65 years) in Vanuatu underwent screening, including 30% (9133/30 424) of eligible 30–50-year-old women. HPV testing (CareHPV, Qiagen) has been possible thanks to the testing kits donated by the Frazer Family Foundation. Of the 8593 women screened for HPV, 857 (10%) were screen positive. In addition, 10 897 Pap smears were performed, with a high grade as a result in 260 (2.39%) patients. Just over half of the women with high-grade Pap smears (133/260, 51.1%) also had an HPV test, of which 101 (75.9%) were positive. Treatment (large loop excision of the transformation zone) of high-grade Pap smear results has increased from 40.5% in 2015 to 61.9% in 2018. In the screened women, 97 cancers were detected, with six (0.2%) of 2894 women aged <30 years, 55 (0.5%) of 10 135 women aged 30–50 years, and 36 (1.6%) of 2181 women aged >50. Anecdotally, there are many more undiagnosed and

symptomatic cancers, particularly on the outer more remote islands.

One of the issues in Vanuatu is reaching women who live on the remote islands, and this is borne out in the screening data, with the rates of eligible women being screened varying across islands from <1% to nearly 90% (Figure 1). Other ongoing challenges

in cervical screening include patients having to travel a long distance to seek screening and treatment, the use of alternative medicines, lack of health education, and financial constraints including the expense of transporting women to an island where excisional treatment is available. One great innovation to address this

Figure 1 Cervical cancer education in the villages.

Figure 2 IKKANA-led cervical cancer screening outreach program at Hokai on the South Malekula island in May 2020.

Figure 3 Professor Ian Frazer and Ni-Vanuatu nurse Nellie giving the first HPV vaccination at a new Port Villa clinic.

has been the locally driven group IKKANA, a volunteer organization that, since 2017, has organized cervical cancer screening on the islands of Ambrym and Malekula. Furthermore, IKKANA conducts patient education, trains local nurses, and sets up local funds to which women contribute in order to finance travel expenses for patients who need treatment or travel expenses for nurses and doctors to come to the islands to provide consultation locally (Figure 2).

In addition to screening, pilot HPV vaccination studies in Vanuatu achieved

coverage in targeted populations of 94% (5 years of initial HPV vaccinations were donated by the Frazer Family Foundation), and a national HPV vaccination program in Vanuatu is due to come into effect in 2021 (Figure 3). Over the last 5 years many lessons have been learned in delivering cervical cancer prevention programs, one of the most pertinent of which is that HPV vaccinations are more successful when linked with the school tetanus visit program, and when participation in the program is automatic and

parents must go through a process of 'opting out' if they do not want their child to be immunized rather than needing up-front 'opting in' prior to immunization.

Local and international mobilization and innovation remain necessary to achieve more cervical screening coverage as well as adequate HPV vaccination. Given the enthusiasm and commitment of the Ni-Vanuatu women, nurses, doctors, scientists, volunteers, and donors to achieve so much thus far, we believe that elimination of cervical cancer in Vanuatu is possible (Figure 4).

Correspondence to Dr Emma R Allanson, University of Western Australia, The University of Texas MD Anderson Cancer Center, Houston, TX 77030, USA; emma.allanson@gmail.com

Collaborators Cervical Cancer Foundation (logistics support), Vanuatu Ministry of Health, Sullivan Nicolaides Pathology, Frazer Family Foundation.

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Figure 4 The team in the field. Clockwise from top left: midwife Harriet Obed, Dr Errolyn Tungu, Dephanie Albert and Vera Velanova, Dr Boniface Damutalau, Max Albert (founder of IKKANA), and midwife Charlotte Lingbu.