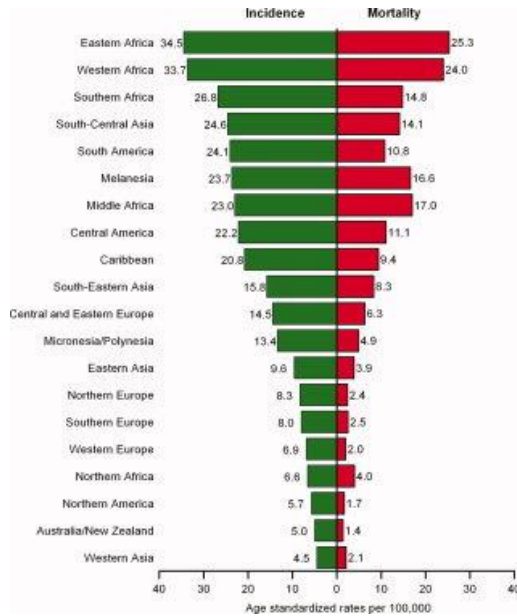




Developing a sustainable programme of cervical screening using VIA and HPV testing in rural Malawi

Cervical cancer is one of the most common cancers in women, affecting young and economically active women disproportionately in low resourced countries. East Africa has the highest incidence and indeed in Malawi, cervical cancer is the commonest cancer in women (45.4%) and if nothing is done, it is estimated that the number of cervical cancer cases will rise by 60% by 2025.



Scotland has two extremely effective interventions to limit cervical cancer incidence and precursor diseases. These are free HPV immunization which is offered to all girls aged 12-13 in school and has a sustained 90% uptake, together with a nationwide system for cervical screening by cytology every 3 years from age 20-60. The contrast between high income countries such as ours and Malawi which has neither population based screening nor HPV immunization is stark.

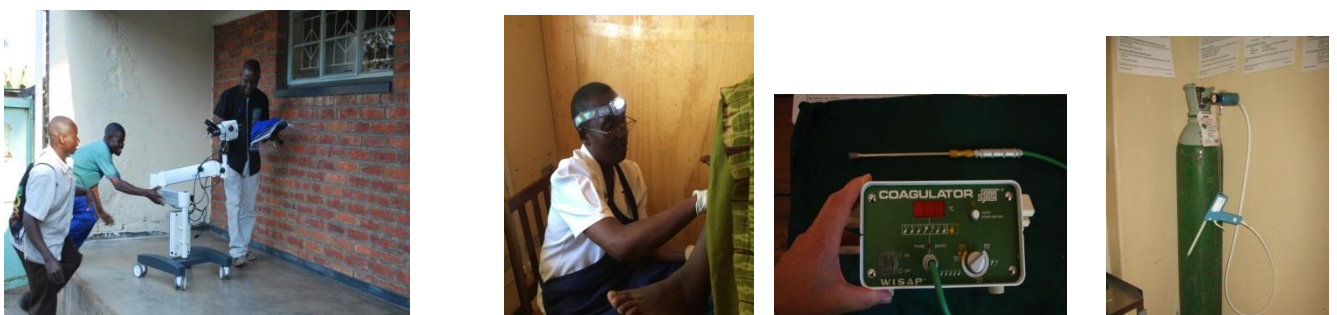
With funding from the Scottish Government’s International Development Fund for Malawi, we are seeking to bring change by introducing cervical cancer prevention services to rural central Malawi, working in partnership with Nkhoma Hospital, a mission hospital with responsibility for healthcare delivery for a rural area of 325,000 people. Our Edinburgh team includes NHS Lothian and University of Edinburgh staff [Dr Christine Campbell, Centre for Public Health Sciences; Sister Hilary Brown and Dr Graeme Walker, Simpson Centre for Reproductive Health, RIE; Dr Liz Grant, GHA and Prof Heather Cubie, HPV Research group, Centre for Reproductive Health] and has a wide range of relevant skills and experience to offer to Nkhoma. Dr Isabel Bruce who supports Liz in another project in Nkhoma provides the team with expert monitoring and reporting skills.

There are no cytologists in Malawi so cervical screening is performed using VIA (Visual inspection with acetic acid). However this skill takes time to develop and is readily lost if only small numbers of women are seen. Our main aims are to upskill local nursing and clinical officer staff in Nkhoma Hospital and its associated Health Centres and provide cold coagulation treatment and colposcopy training through Scottish professionals spending time in Nkhoma. We also aim to educate healthcare professionals and the local population about the value of cervical screening and provide HPV testing for triage to VIA, at least in the hospital setting. From a sustainability point of view, we are increasing awareness of the value of data collection and analysis to establish a robust evidence base for appropriate cervical screening and follow-up; interacting with Colleges of Nursing through VSO nurse tutors to develop a curriculum module based on knowledge of cervical cancer screening and prevention and finally, working with the Ministry of Health of Malawi to assess HPV prevalence before implementation of an HPV vaccine programme.

Important milestones have been reached since our first visit in May 2013. We now have proper clinic rooms with privacy screens, suitable examination couches and essential equipment. This is done by placing a cotton ball soaked in vinegar on the cervix and examining by eye for evidence of white patches which denote abnormal cells. The Nkhoma VIA clinic forms an integral part of a new reproductive health unit at the hospital. Cervical screening messages are being delivered to women and men attending Family Planning (daily) and HIV ART clinics (twice weekly). Sensitisation has started in the surrounding villages in preparation for roll-out of the VIA service over the next 2 years. We have been very fortunate that Dr Miriam Deeny, consultant gynaecologist in Stobhill Hospital Glasgow was ready to spend 3 months 'sabbatical' in Nkhoma Hospital. Miriam has just returned to Scotland leaving behind a much more skilled Malawian team and we are tremendously grateful to her for this consolidation of efforts in 2013. We now have 2 more years to prove this programme of cervical cancer prevention is cost effective for Nkhoma and Malawi.



Six staff now undertake VIA and 3 have basic colposcopy skills. Creation of an image bank using a digital colposcope purchased from the grant provides an excellent teaching tool and has already helped significantly to develop and maintain clinical skills. Treatment of early lesions is being performed using cold coagulation. This is more consistent and less expensive to perform compared with the recommended cryotherapy which requires heavy CO₂ cylinders which are rarely available. The capital outlay for a cold coagulator (c£8,000) is a small investment for effective delivery of treatment. We now have two cold coagulators, one provided by NHS Lothian and the second kindly gifted anonymously through Africa Health Trust. Staff have also been trained to take biopsies in clinic, speeding up the process of pathological diagnosis. Early cancers can be dealt with by simple hysterectomy, but there is no complex surgery, chemo, or radiotherapy for more advanced disease.



Over 700 women were seen in daily VIA clinics in the first 2 months of activity. VIA positivity is approx 15%. Nineteen cancers were detected of which sadly, 11 were advanced. Cervical cancer is a nasty cancer where women are ostracised and receive minimal if any care and support in their final months. Our aim is to find such cancers early when they can be treated easily, to reassure the majority of women who have healthy cervixes and educate them and their partners to see that regular VIA will prevent painful cancers and loss of life.

Because so many women are totally unscreened, we hope we might be able to use HPV testing to triage those women who should have priority for VIA. We have done over 100 HPV tests but it is too early to say if it will provide the way forward. This is something for our next blog!

If you would like to find out more about our programme, please do not hesitate to contact me, on Heather.Cubie@ed.ac.uk.

