Background
The Republic of Kiribati, is a Pacific country consisting of 32 low-lying atolls and one volcanic island straddling the equator, and bordering the International Date Line. The islands, 22 of which are inhabited, are distributed in three main groups in the east (Line Island group), south (Phoenix Islands) and west (Gilbert Islands) of the country (Figure 1). Despite having a total land area of only 811 square kilometres, the country is spread over 3.5 million kilometres of ocean. High density housing and overcrowding, inadequate water fresh water supplies and an increasing prevalence of non-communicable diseases contribute to morbidity and mortality. Health services are publicly funded, but some human resource constraints, particularly of paramedical and support staff, limit delivery in some settings.

Lymphatic filariasis in Kiribati
A series of lymphatic filariasis (LF) baseline surveys were conducted in the country between 1999 and 2001. LF prevalence was as high as 6.8% in some areas and the country was categorized as endemic. Five rounds of annual mass drug administration (MDA) with diethylcarbamazine (DEC) and albendazole (ALB) were commenced in 2001 and completed in 2006. Reported coverage ranged from 45% to 86% for the five rounds. Over 2007 – 2008 a national post-MDA survey was conducted during which 44 out of 2,986 (1.5%) individuals tested Ag positive. Of positive cases, 64% were male and the highest prevalence was in the 11 – 20 (2.3%) and 21 – 30 (2.3%) age groups. These accounted for a combined total of 59.1% of cases. Prevalence was unequally distributed between island groups with 0.1%, 1.5% and 2.2% testing positive in Gilbert Islands (excluding South Tarawa), Line Islands and South Tarawa, respectively. To achieve elimination, a targeted strategy of active surveillance (Gilbert Islands); testing the entire population with follow-up treatment of positive cases (‘test-and-treat; Line Islands); and further rounds of MDA (South Tarawa) was pursued. This strategy aims to achieve verification of elimination before 2020.
Management of Filarial Morbidity
Kiribati is one of more than 70 countries that are endemic for LF. In addition to implementing the WHO-recommended strategy to interrupt transmission through mass drug administration (MDA), the Ministry of Health is working hard to alleviate the suffering and disability caused by the disease. Irreversible chronic LF symptoms in the form of elephantiasis (legs, arms, breast) or hydrocele (enlargement of the scrotum) cause considerable and ongoing morbidity, stigma, and economic impacts. Hydroceles can be cured by surgery. However, in the case of elephantiasis, individual care and treatment of the affected limbs is the only means to enable improvement of quality of life and to prevent infections. Education of patients and their relatives to manage symptoms of elephantiasis can result in drastic improvements in quality of life and productivity. This management includes:

- Regularly cleaning and drying affected limbs, including folds and between the toes
- Keeping the limb elevated as much as possible, in bed and during daily activities
- Exercising the limb
- Apply antiseptic cream for lesions as necessary
- Properly responding to adenolymphangitis (ADL) episodes (also known as acute attacks)

Activities and impacts of morbidity management in Kiribati
The geography of the Kiribati islands poses unique challenges for service delivery. The small population is widely dispersed and transport between islands can take many days. In addition to this, LF patients have felt stigmatised and are often unable to access support.

Following training from WHO experts in April 2007, the national programme manager has been providing house-to-house education to patients and their relatives. In the past three years this commitment has been making a real difference in the daily life of Kiribati patients suffering from this disfiguring disease. This program has benefited from strong country ownership and dedicated work from programme managers, with support from WHO.

The case studies below highlight the impact of house visits to patients and their families by trained health workers. After demonstrations, patients were provided with wash basins, soap, towels, and antibiotic cream. Realizing the importance and impact of these simple steps, patients quickly took ownership and encouraged others to continue this daily care. This is a great example of how inter-personal relationships and the power of language can be agents of change in the community. They can be turned into entry points to health programmes, support monitoring and evaluation and ultimately be a way of giving confidence and improved quality of life.
MORBIDITY MANAGEMENT TO IMPROVE QUALITY OF LIFE IN KIRIBATI

The case of Tetenge: undiagnosed LF and stigmatization

One day I had fever and swelling of my right leg where the skin had burst, developing an open wound with pus and watery discharge. Flies were all over the place. The pain was unbearable. I was admitted to hospital and the doctor came and ordered a blood test and initiated antibiotics to treat the infection. After few weeks in the hospital, the doctor told me they cannot do anything for me aside from the antibiotics I had been taking. I was discharged and stayed at home with my big right leg. I could barely walk. I realized I would lose my job and I did not know what to do about my children and the whole family I had been supporting. From this time onwards I also noticed that my neighbors were avoiding me.

Not very long after I was discharged I was visited by a team from the Ministry of Health who informed me for the first time that I have elephantiasis (lymphatic filariasis). This problem is caused by a parasite which lives in the lymphatic tissues. It was explained to me that this is transmitted from one person to another by mosquitoes.

The team which visited me taught me and my family how to look after my big leg and I was given tablets to kill these parasites in my body and help to interrupt transmission of the disease. But drugs cannot bring my leg to its normal size. I am visited monthly for follow up, and every three months for treatment. After receiving drugs and practicing the measures taught to me I felt my leg is decreasing in size, it feels lighter, no more wounds developed, it stopped being red, and there was no more pain in the affected leg.

I would like to thank the Ministry of Health for their support on behalf of all those suffering from this disease. It allows us to lead an enjoyable life.

“Activities promote community awareness of LF...Ongoing follow-up lessens the feeling of being avoided...This makes me feel I am supported in the community”
The case of Remania: household visits improved confidence

I was admitted to the hospital sometime in 2007 and was later discharged as my doctor explained my condition and said they cannot do anything else for me. I realized I would lose my job which would dramatically reduce the income of the family. I was left feeling hopeless and useless as it is my responsibility to support the whole family. While staying at home, nobody visited me beside my family members as the news of my being a LF patient spread throughout the community. I felt useless, stigmatized, neglected and even a burden for my relatives.

One day in May 2007, I was visited at home by a team from WHO and the Ministry of Health and it is the day that changed my life. They started me on the LF drugs. They also cleaned my leg themselves and showed me how I should do it every day. They left with me several important items that I can use for cleaning and drying my leg, which I am now doing regularly. They advised me what to do and where to go for treatment for future problems with my leg.

"Ongoing full time nursing avoided feelings of neglect...The feeling of stigmatization was lessened"

I noticed that every month the coordinator visited us for follow up and for drug distribution every three months. From these activities, I realized that there is no stigmatization or neglect and I realized that we are all supported by the programme here.

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