Important ‘knowns’ in 2012

RMI youth are arguably at a higher risk of HIV compared to youth living in most other parts of the Pacific because of **sexual behaviors** and **injecting drug use**

RMI has an **organized, highly stigmatized sex industry** with many sex workers from other countries

The **HIV treatment** program is generally running well

RMI has successfully **conducted multiple, serial studies** of youth & women attending antenatal care & re-established the National Advisory Committee

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What do we know about HIV epidemiology at the end of 2012?

Derived from existing sources of data from MOH, SPC

RMI reported the first case of HIV in the Pacific in 1984 when testing was introduced. Six cases were diagnosed in that year

A second spike in cases was observed in 2006-2009. 15 of the total 25 cases have been reported since 2006 – however, some of these recent cases had advanced disease suggesting they were infected years before. Testing has increased since 2008

Almost equal numbers of men and women have been infected

Most cases have been among young people, though people diagnosed during 2008-09 are *younger* than those diagnosed between 1984 and 2006

Heterosexual transmission is believed to be the main way people are infected in RMI. No cases have been linked to injecting drug use despite more youth reporting doing this than in any other PICT

10 PLWHIV are known to have died. However, access to treatment is good – 7 of the 8 PLWHIV known to still be residing in RMI are on ART and the Global Fund has ensured supply of ARTs since 2008

Almost 1 in 10 pregnant women attending ANC is infected with *chlamydia*

What do we know about risk behaviors?

Derived from data from surveys of youth, the 2010 UNGASS report & other information

A high proportion of youth are sexually active, begin sex at a young age, and have multiple partners, which is similar to youth in FSM. More RMI youth, however, report using condoms, though condom use for those with multiple partners remains very low

Unemployed, out of school youth have less knowledge and riskier behaviors

More RMI youth report Injecting drugs than has been recorded in any other survey of youth conducted in the Pacific

Commercial sex has been cited as a major source of vulnerability. As compared to many other PICTs, RMI has been singled out as having an organized sex trade with links to China and Korea

Two PLWHIV recently died after stopping their ART because they believed traditional medicine to be more effective

Stigma is a problem in RMI and limits the collection of behavioral information from risk groups & participation in preventive activities

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Ideas about action...

The epidemiology may have changed since the millennium but there are not enough details about cases to inform preventive actions – a *case series* of recently diagnosed HIV cases would be useful to assess whether HIV is being acquired locally or offshore, how HIV is being transmitted, and who might be at highest risk

Develop a surveillance strategy to ensure consistent, comparable data are collected from groups with different risk profiles to describe the evolution of the epidemic and contemporary risk behaviors so that preventive activities are evidence based

A better understanding is needed of injecting drug use to develop appropriate preventive activities

Stigma & discrimination need to be addressed and this may improve information collection from important risk groups. It would be useful to work out how best to conduct surveillance and research among people engaged in illegal activities

An understanding of how PLWHIV view ARTs and why they stop treatment is needed to improve their medical management

The Regional Strategic Plan for the Prevention and Control of STIs provides benchmarks for data management and programs – full implementation will be beneficial for HIV control

Recent reviews of STI programs, particularly from isolated yet mobile indigenous Australian communities, provide ideas worth considering for the Marshall Islands

What don't we know?

AND WHAT CAN BE IMPROVED

Consistent, comparable longitudinal data disaggregated by site are not available to track trends in HIV and STI over time and in different parts of RMI (E.g. ANC clinics, STI clinics, VCT services, TB programs) – *fixed sites offer a ready means of routine surveillance and can be combined with non-HIV data (e.g. TB)*

The spatial distribution of cases has not been described and, for most cases, it is not known if they were infected in RMI or overseas – *this contrasts with Kiribati and FSM where offshore acquisition is known to be important especially for seafarers and other travellers*

There is limited information from outer islands because of limited access to health services

Risk groups have also not been well defined by sex, age, occupation or geography. Where key risk groups have been identified, fear of negative consequences and stigma & discrimination has limited assessments– *sex work is illegal; few local people have accepting attitudes to those with HIV*

For youth, little is know about transactional sex, about the prevalence of STIs, & about the nature of injecting drug use - *this is despite more surveys of youth having been conducted than in most other PICTs. It is important to know more about IDU among youth and other risk groups as data suggests that this is a relatively common behavior compared with people living in other PICTs*

Sex between men is reported in youth surveys but little is known about the risk of HIV for these youth and for older men who have sex with men

Cases identified in 2008-09 via 'walk-ins' with advanced disease & from contact tracing raise concerns about existing screening & education programs – *understanding who these people are and why they presented late would be beneficial*

Adherence to ART and other treatment may be a problem for PLWHIV – *the reasons why 2 people ceased taking ART could be better understood*

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Some numbers.....

NB: not an exhaustive review of available data

Epidemiology

Total: 25 cases by the end of 2011 with 8 people known to be currently living with HIV in RMI

Sex: 10 males (40%), 11 females (44%), 4 unknown. Sex of cases by year of diagnosis not publicly available

Age: Possibly a changing pattern - median age was 32.5 years for 12 cases diagnosed between 1984-2006; most of the 10 cases diagnosed between 2008-2009 were aged 15-27 years

Other demographics: Most of the 10 cases reported in 2008-09 were unemployed, had attained a middle school education but were not at school

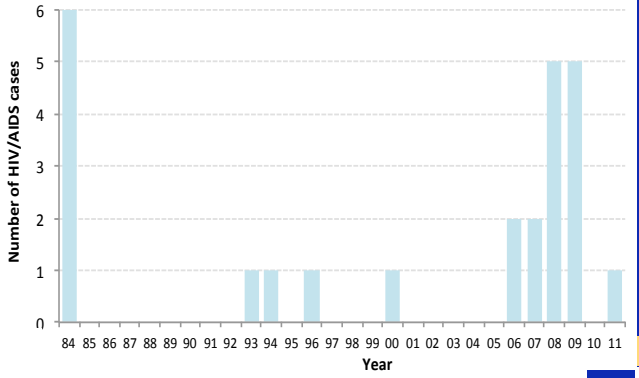
Transmission: thought to be primarily heterosexual; 3 cases mother-to-child. One child (aged 3mths) was diagnosed *before* their mother in 2008-09 - the mother did not attend ANC. Another child aged 17mths died with HIV in 2008-09 but the mode of transmission is not known.

Site: No publicly available data

Mortality: 10 cases known to have died (incl. 2 on ART who favored traditional therapies & stopped ART)

Treatment: 7 on ART at end of 2011

The epidemiological curve might suggest that there have been 2 peaks: in 1984 & in 2006-09. However, some of the cases in 2006-09 had advanced disease



ANC attendees: 1 case was diagnosed by screening (2008-09). Another pregnant woman was identified not via screening but because her husband was diagnosed (2008-09)

STIs: ANC: No HIV in 2006 study. (1999, 2000, 2001) - no real change in prevalence of *Chlamydia* (9.5%, 7.4%, 9.2%), *Gonorrhea* may have declined (9.5%, 5.2%, 6.0%), & possibly an increase in *Syphilis* (2.2%, 3.9%, 7.1%)

Other data: In the Pacific: highest fertility rate (2006); highest % of youth using injecting drugs (2007); high teenage pregnancy rate;
2 cases had TB-HIV co-infection in 2009

General surveys

DHS (2007)

Specific population surveys

Pregnant women (1999, 2000, 2001, 2006, 2008)

CDC Youth Risk Behavior Surveillance System surveys (2003, 2007, 2009)

Other Youth surveys (2006, 2008)

Female sex workers (2006-07) – survey abandoned due to participant fear of persecution

Youth behaviors

RMI youth are more sexually active than most other Pacific youth - 39% had sex in the 3mths before their interview (2007); 17-33% had 2 or more partners in the last year (2008)

The number of lifetime partners for youth, however, may be decreasing: 23.8% had 4 or more partners in 2003, 19.2% in 2007. There was also a small decline in the proportion of youth who had sex before 13 years of age: 10.6% (2003), 8.3% (2007)

While surveys in 2003 & 2007 found that about half of all youth used a condom during last sex, a 2008 study found that condom use may be less frequent for those at highest risk – 15.6% of those aged 15-19 years with multiple partners; 26.7% aged 20-24 years

No data are available on transactional sex for youth or forced sex

4.3% of male youth reported ever having sex with a man

15% of youth said that they had ever injected drugs in their life (2007)

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UNGASS indicators

Indicators #7, 10, 12 not particularly relevant for low prevalence settings

Indicator #6 Percentage of estimated HIV positive incident TB cases that received treatment for TB and HIV – *more useful in the short term to know coverage of HIV testing for newly diagnosed TB patients*

Surveillance system components

Routine or periodic surveillance needs to be established in key facilities – ANC clinics, STI clinics, TB clinics, and VCT clinics

ANC screening has detected some cases & missed others - routine screening of all pregnant women appears to be useful in this setting if combined with improved coverage of ANC

One case was identified via blood screening in 2008-09 - 100% screening of blood products needs to be maintained

Comparable behavioral surveillance needs to be conducted regularly among key risk populations to track trends. This might be important for FSW, MSM & IDUs who are not included as part of the national surveillance system. RMI should also assess whether it can add to or amend the YRBS to collect locally relevant data

Special studies such as incidence studies among specific cohorts and investigations to assess why prevention activities worked or did not work in changing behaviors might be useful

Molecular epidemiology may assist in determining the historical spread of HIV to and within RMI if stored sera are available for testing

Prevalence studies may not be particularly useful at this stage unless there are suspicions of many hidden infections or unless combined with STI prevalence studies deemed to be necessary in their own right

AIDS case reporting relies on health seeking behaviors and trained health staff – raising awareness is important in RMI given people have been presenting late in the course of their illness

Treatment and care data should report whether PLWHIV are eligible for and accessing treatment

Relevant non-HIV data are not yet routinely compiled and reported with HIV surveillance data

Comments on *possible* risk factors & drivers

FROM EXISTING DATA

Sexual debut & multiple sexual partners– *youth have sex at a young age and a high proportion then has multiple partners*

Transactional sex– *organized sex industry but little information about FSWs, their clients and commercial sex between men*

Male-male sex – *nothing known except that over 4% of youth reported male-male sex*

Condom use – *only half of youth used a condom at last sex and far fewer youth with multiple partners in the last year used a condom at last sex*

STIs – *rates appear high – 15% of ANC attendees had an STI in a 2004 study; identified as a key issue in the 2008-11 national health plan*

Injecting drug use – *the proportion of youth reporting having injected drugs is a real concern but specific details about what is being injected, the nature of the risk of HIV transmission and who is at risk have not been described*

Knowledge –*reasonably good for youth but not known for other important risk groups*

Stigma and discrimination – *limits information collection and engagement with preventive activities and services, especially for people involved in illegal activities*

Young population – *similar to other Pacific Islands*

Internal and international migration – *not well described in publicly available data but presumably similar situation across all of Micronesia – mobile men with money in RMI??*

Other socio-cultural factors – *poverty, unemployment, lack of social opportunities (e.g. sporting facilities) except bars – presumably similar underlying factors to Kiribati and FSM*

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