Sexually Transmitted Infections, Tuberculosis, and Malaria
Outline

- Sexually Transmitted Infections (STIs)
- Tuberculosis
- Malaria
STIs: Background

• Untreated STIs can lead to acute illness, infertility, long term disability, and even death.

• Untreated STIs, especially HSV-2, may increase risk of HIV transmission.
STIs in the 2007 NDHS

<table>
<thead>
<tr>
<th>Category</th>
<th>Women</th>
<th>Men</th>
</tr>
</thead>
<tbody>
<tr>
<td>STI</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>STI or STI symptom</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>
STIs in the 2007 NDHS

- Of these adults, about 6 in 10 had sought care for their STI or STI symptoms from a health facility or a health professional.
NHFC: Availability of STI Services

(Table 7.1)

Percentage among all facilities N=370)
Availability of STI Services

Percentage of all facilities (N=370)

Kunene: 100%
Omusati: 96%
Oshana: 90%
Ohangwena: 100%
Oshikoto: 95%
Kavango: 100%
Kavango: 100%
Caprivi: 96%
Erongo: 92%
Otjozondjupa: 93%
Omaheke: 94%
Khomas: 67%
Hardap: 100%
Karas: 88%

Namibia: 93%

(Table 7.1)
Main Location of STI Services

(Table 7.1)

Percent of facilities where STI services are available in indicated area among facilities offering STI services (N=370)

- General outpatient
- Special clinic
- FP service area
- ANC service area
- OPD, FP, and ANC

<table>
<thead>
<tr>
<th></th>
<th>Hospital</th>
<th>Health centre</th>
<th>Clinic</th>
<th>Sick bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>88</td>
<td>96</td>
<td>94</td>
<td>100</td>
</tr>
<tr>
<td>Special</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>FP</td>
<td>25</td>
<td>61</td>
<td>88</td>
<td>14</td>
</tr>
<tr>
<td>ANC</td>
<td>13</td>
<td>76</td>
<td>84</td>
<td>0</td>
</tr>
<tr>
<td>OPD, FP,</td>
<td>0</td>
<td>52</td>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>ANC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Items to Support Quality STI Services

*Table A-7.2*

Percent of facilities offering specific STI services (N=370)

- Visual and auditory privacy: 91%
- Any guidelines for STIs: 91%
- Visual aids: 90%
- Male condoms at service delivery site: 88%
- Male condoms in facility: 99%
- All items to support quality counselling: 63%
Items to Support Quality Examination for STI Services

*(Table A-7.2)*

Percent of facilities offering STI services (N=370)

- **Infection Control**
  - Soap: 85%
  - Running water: 87%
  - Clean latex gloves: 92%
  - Disinfecting solution: 74%
  - Sharps box: 97%
  - All items for infection control: 65%

- **Exam**
  - Visual and auditory privacy: 94%
  - Exam bed: 94%
  - Exam light: 37%
  - All items for exam: 34%
Method for Diagnosing STIs

*(Table 7.2)*

Percent among facilities offering STI services *(N=370)*

- Hospital: 47% Etiologic, 53% Syndromic
- Health centre: 28% Etiologic, 65% Syndromic
- Clinic: 15% Etiologic, 60% Syndromic
- Sick bay: 57% Etiologic, 57% Syndromic
Testing Capacity for STIs

(Table 7.2)

Percent among facilities offering STI services (N=370)

<table>
<thead>
<tr>
<th>Test</th>
<th>Hospital</th>
<th>Health centre</th>
<th>Clinic</th>
<th>Sick bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Syphilis</td>
<td>91</td>
<td>96</td>
<td>57</td>
<td>89</td>
</tr>
<tr>
<td>Gonorrhea</td>
<td>81</td>
<td>96</td>
<td>57</td>
<td>89</td>
</tr>
<tr>
<td>Wet mount</td>
<td>91</td>
<td>98</td>
<td>57</td>
<td>93</td>
</tr>
<tr>
<td>Chlamydia</td>
<td>19</td>
<td>17</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>72</td>
<td>78</td>
<td>57</td>
<td>86</td>
</tr>
</tbody>
</table>
Least One Medication for STIs

(Table A-7.3)

Percent among facilities offering STI services (N=370)
Management Practices Supporting Quality Services for STIs

(Table 7.3)

Percent among facilities offering STI services (N=370)

- Client register with entry made within past 7 days
- Most recent entry > 7 days ago

<table>
<thead>
<tr>
<th></th>
<th>Hospital</th>
<th>Health centre</th>
<th>Clinic</th>
<th>Sick bay</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>50</td>
<td>54</td>
<td>40</td>
<td>14</td>
</tr>
<tr>
<td>%</td>
<td>28</td>
<td>35</td>
<td>49</td>
<td>57</td>
</tr>
</tbody>
</table>
Management Practice: Training and Supervision of Providers

(\textit{Table 7.3})

Percent among facilities where STI providers were interviewed (\textit{N}=368)

- Hospital
- Health centre
- Clinic
- Sick bay

<table>
<thead>
<tr>
<th></th>
<th>Routine training</th>
<th>Routine personal supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>75</td>
<td>94</td>
</tr>
<tr>
<td>Health centre</td>
<td>72</td>
<td>89</td>
</tr>
<tr>
<td>Clinic</td>
<td>64</td>
<td>74</td>
</tr>
<tr>
<td>Sick bay</td>
<td>29</td>
<td>43</td>
</tr>
</tbody>
</table>
Training Received by STI Service Providers

(Table A-7.6)

Percent of interviewed STI service providers (N=930)

- Received training in past 12 months
- Received training 13-35 months before survey

<table>
<thead>
<tr>
<th>Training Area</th>
<th>Received in Past 12 Months</th>
<th>Received 13-35 Months Before Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any diagnosis and treatment of STIs</td>
<td>22</td>
<td>20</td>
</tr>
<tr>
<td>Syndromic approach</td>
<td>20</td>
<td>19</td>
</tr>
<tr>
<td>Any course related to HIV/AIDS</td>
<td>39</td>
<td>21</td>
</tr>
<tr>
<td>PMTCT</td>
<td>30</td>
<td>22</td>
</tr>
</tbody>
</table>
Observed Client Counselling Sessions

(Table A-7.11)

Percentage among observed client counseling session with the indicated counseling components (N=118)

- Client received prescription or medicine: 98%
- Client instructed about medicine: 70%
- Partner referral encouraged: 69%
- Risk of HIV mentioned: 44%
- Discussed condoms for prevention: 52%
- Offered condoms: 22%
Key Findings: STIs

• STI services are widely available in every region.
• Overall, 88% of facilities have medicines available to treat each of 4 major STIs.
• Items are available in most facilities to provide quality STI services, including condoms, guidelines, and visual aids.
• Only 2/3 of facilities have all items needed for infection control and only 1/3 have all items needed for STI exam.
• Almost all facilities can treat the 4 major STIs.
Outline

• Sexually Transmitted Infections (STIs)
• Tuberculosis
• Malaria
Tuberculosis: Background

- TB is a major public health problem in Namibia with more than 13,000 cases reported in 2009.
- Drug-resistance TB is increasing, making treatment a larger challenge.
- About 40-50% of people with HIV will develop TB.
Availability of TB Services

*Table 7.4*

Percent of facilities offering TB services (N=396)

- **Any TB diagnostic services**
  - Hospital: 80%
  - Health centre: 91%
  - Clinic: 82%
  - Sick bay: 44%
  - Total: 87%

- **TB treatment or follow-up services**
  - Hospital: 78%
  - Health centre: 96%
  - Clinic: 84%
  - Sick bay: 56%
  - Total: 84%

- **Any TB services**
  - Hospital: 80%
  - Health centre: 96%
  - Clinic: 88%
  - Sick bay: 56%
  - Total: 82%
Facilities Following DOTS Treatment

*(Table 7.4)*

Percent of facilities with TB services providing treatment through DOTS (N=332)

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>57</td>
</tr>
<tr>
<td>Health centre</td>
<td>60</td>
</tr>
<tr>
<td>Clinic</td>
<td>61</td>
</tr>
<tr>
<td>Sick bay</td>
<td>80</td>
</tr>
<tr>
<td>Total</td>
<td>61</td>
</tr>
</tbody>
</table>
Items to Support TB Services

(Table A-7.11)

Percent among facilities following DOTs for TB ($N=201$)

- Observed client register for DOTS
- All first-line TB medicines available

<table>
<thead>
<tr>
<th>Location</th>
<th>DOTS Register</th>
<th>TB Medicines Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>90</td>
<td>95</td>
</tr>
<tr>
<td>Health Centre</td>
<td>81</td>
<td>81</td>
</tr>
<tr>
<td>Clinic</td>
<td>81</td>
<td>66</td>
</tr>
<tr>
<td>Sick Bay</td>
<td>50</td>
<td>75</td>
</tr>
</tbody>
</table>
Facilities Following DOTS Treatment

Percent among facilities offering any TB treatment (N=332)
Ability to Provide Sputum Test

(Table A-7.13)

Percent of facilities (N=396)

<table>
<thead>
<tr>
<th>Facility</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>78</td>
</tr>
<tr>
<td>Health centre</td>
<td>89</td>
</tr>
<tr>
<td>Clinic</td>
<td>76</td>
</tr>
<tr>
<td>Sick bay</td>
<td>44</td>
</tr>
</tbody>
</table>
Referral for HIV Testing

(Table A-7.14)

Percent among those offering any TB services (N=345)

<table>
<thead>
<tr>
<th>Location</th>
<th>All Cases Routinely Referred</th>
<th>Only Suspect Cases Referred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>89</td>
<td>6</td>
</tr>
<tr>
<td>Health centre</td>
<td>93</td>
<td>4</td>
</tr>
<tr>
<td>Clinic</td>
<td>82</td>
<td>5</td>
</tr>
<tr>
<td>Sick bay</td>
<td>80</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>5</td>
</tr>
</tbody>
</table>
Key Findings: Tuberculosis

• 82% of all facilities provide any TB diagnosis, treatment, and/or followup.
• 61% of all facilities providing TB treatment follow the DOTS strategy.
• 71% of facilities following DOTS have all first-line treatment medicines available.
• 77% of facilities can test sputum.
• 84% of facilities routinely refer newly diagnosed TB patients for HIV testing.
Outline

• Sexually Transmitted Infections (STIs)
• Tuberculosis
• Malaria
Background: Malaria

- Malaria is a major cause of morbidity and mortality in Namibia
- 600,000 cases of malaria are reported each year
- Malaria was the #1 cause of death between 1999 and 2002.
- 65% of the population live in malaria-endemic areas.
- The National Malaria Policy and Strategy aims to increase use of insecticide treated mosquito nets (ITNs) and improve treatment of malaria.
- In 2005 artemisin-based combination therapy (ACT) was introduced as the recommended malaria treatment.
Malaria in the 2006-07 NDHS

• 20% of Namibian households have an ITN.
• Only 11% of young children and 9% pregnant women slept under an ITN the night before the survey.
• Only 11% of pregnant women took 2 doses of IPT (intermittent preventive treatment in the form of SP/Fansidar) during their last pregnancy.
• Among children with fever (the primary symptom of malaria) only 10% took an antimalarial drug.
Facilities with Malaria Treatment Services

(Table 7.5)

Percent of facilities (N=396)

<table>
<thead>
<tr>
<th>Type</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>82</td>
</tr>
<tr>
<td>Health centre</td>
<td>98</td>
</tr>
<tr>
<td>Clinic</td>
<td>86</td>
</tr>
<tr>
<td>Sick bay</td>
<td>78</td>
</tr>
<tr>
<td>Total</td>
<td>87</td>
</tr>
</tbody>
</table>
Overall, 95% of facilities can test for malaria.
Malaria Treatment Protocols

(Table 7.5)

Percent of facilities among those offering malaria diagnosis and/or treatment that have treatment protocols in ANY relevant unit (N=386)
Availability of First-Line Antimalarials

(Table 7.5)

Percent of facilities among those offering malaria diagnosis and/or treatment that have 1\textsuperscript{st}-line antimalarials in the facility (N=386)

<table>
<thead>
<tr>
<th>Type</th>
<th>Hospital</th>
<th>Health centre</th>
<th>Clinic</th>
<th>Sick bay</th>
<th>MoHSS</th>
<th>Mission/NGO</th>
<th>Private</th>
<th>MOD/POLICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>availability</td>
<td>93</td>
<td>83</td>
<td>70</td>
<td>57</td>
<td>79</td>
<td>86</td>
<td>32</td>
<td>55</td>
</tr>
</tbody>
</table>
Availability of Antimalarials:

• **Only 2%** of facilities had stock-outs of 1st line antimalarials in the 6 months before the survey. *(Table 7.5)*
Provider Training

(Table 7.6)

Percent of facilities among those offering malaria diagnosis and/or treatment where at least 1 service provider has received training in diagnosis or treatment (N=386)

At least 1 nurse provider received training
- Preceding 12 months: 43
- Preceding 13-35 months: 23

At least 1 clinician provider received malaria-related training
- 32
Exam and Treatment of Children with Malaria

(Table 4.5)

Percent of observed children diagnosed with malaria by treatment received (N=126)

Physical exam
- Temperature: 100%
- Resp Rate: 42%
- Dehydration: 27%
- Anaemia: 31%

Treatment
- Refer/admit: 4%
- Any antibiotic: 71%
- Any antimalarial: 87%
- 1st line antimalarial: 51%
Provision of ITNs

(Table 7.6)

Percent of facilities among those offering malaria diagnosis and/or treatment (N=386)

<table>
<thead>
<tr>
<th></th>
<th>Distribute free ITNS to ANC clients</th>
<th>Have ITNS in facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Health centre</td>
<td>45</td>
<td>32</td>
</tr>
<tr>
<td>Clinic</td>
<td>39</td>
<td>29</td>
</tr>
<tr>
<td>Sick bay</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MoHSS</td>
<td>40</td>
<td>29</td>
</tr>
<tr>
<td>Mission/NGO</td>
<td>50</td>
<td>43</td>
</tr>
<tr>
<td>Private</td>
<td>43</td>
<td>35</td>
</tr>
<tr>
<td>MOD/POLICE</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>26</td>
</tr>
</tbody>
</table>
ITNs for ANC Clients

(Table A-6.19.1)

Among observed ANC clients, percent who were counselled on various topics

- First-visit ANC client (N=390)
- Follow-up ANC client (N=469)

Importance of using ITN explained

- First-visit: 16
- Follow-up: 4

Given ITN free of charge

- First-visit: 10
- Follow-up: 5
IPT for ANC Clients

(Table A-6.19.2)

Percent among observed ANC clients

- First-visit ANC client (N=390)
- Follow-up ANC client (N=469)

- Provider gave or prescribed IPT
  - First-visit: 12
  - Follow-up: 16

- Provider explained purpose of IPT
  - First-visit: 10
  - Follow-up: 12

- Provider explained how to take IPT
  - First-visit: 11
  - Follow-up: 13

- Provider explained possible side effects
  - First-visit: 1
  - Follow-up: 2

- Dose of IPT swallowed in presence of provider
  - First-visit: 7
Key Findings: Malaria

• 87% of facilities offer malaria diagnosis and/or treatment.
• 95% of facilities can test for malaria either by microscopy or rapid test.
• 3 out of 4 facilities have antimalarial medications, and stockouts are rare.
• Most children with malaria diagnosis are given an antimalarial; only half receive a 1st-line medication.
Key Findings: Malaria

• Fewer than 10% of ANC clients received free ITNs.

• Very few clients received information about IPT.