<PROJECT NAME>

<COUNTRY> STREAMLINED ITN DURABILITY MONITORING <YEAR>-<YEAR>

PRE-DISTRIBUTION TESTING REPORT

## Summary

Samples from <Number> <Brand> ITNs (and <Number> <Brand> ITNs) were randomly selected from <Storage location> on <Date>, <Time in months> after the ITN shipment landed in country. Bioassays were conducted by <Partner> and chemical testing was conducted by <Partner>.

<Summary of bioassay results>

<Summary of chemical testing results>

Insecticide concentrations for new <Brand> ITNs are expected to be <Manufacturer loading dose(s)> (±25%).

## Methods

### Sampling of Nets

<Description of how ITNs were sampled and collected from the storage location>

### Bioassays

<High-level summary of bioassay SOPs / text linked to ITN brand>

### Chemical Testing

<High-level summary of chemical testing SOPs>

## Results

### Mosquito Characteristics for Bioassays

<Results narrative>

Table X: Characterisics of Susceptible Mosquitoes

|  |  |
| --- | --- |
| **Test date(s): <Date(s)>** | **Pre-distribution** |
| **Pyrethroid susceptible mosquito species and strain**  **(<Species> <Strain>)** | **% (n/N)** |
| % Mortality (24h) in <pyrethroid> <concentration> susceptibility tests |  |
| % Mortality (24h) in new <pyrethroid> <concentration> net cone bioassays |  |
| Species composition of strain (PCR) |  |
| Kdr West (L1014F) frequency |  |
| Kdr East (L1014S) frequency |  |

Table X: Characterisics of Resistant Mosquitoes

|  |  |
| --- | --- |
| **Test date(s): <Date(s)>** | **Pre-distribution** |
| **Pyrethroid resistant mosquito species and strain**  **(<Species> <Strain>)** | **% (n/N)** |
| % Mortality (24h) in <pyrethroid> <concentration> susceptibility tests |  |
| % Mortality (24h) in <pyrethroid> resistance intensity tests, 5X <concentration> |  |
| % Mortality (24h) in <pyrethroid> resistance intensity tests, 10X <concentration> |  |
| % Mortality (24h) in new <pyrethroid> <concentration> net cone bioassays |  |
| [For PBO nets]  % Mortality (24h) in <pyrethroid> + PBO (4%) synergist tests |  |
| Species composition of strain (PCR) |  |
| Kdr West (L1014F) frequency |  |
| Kdr East (L1014S) frequency |  |

### Bioassays

<Results narrative>

Table X: <Standard Brand> Cone Bioassay Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Susceptible mosquito strain (<Strain>)** | **Mean (95% CI)**  **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| Optimal effectiveness |  |
| Minimal effectiveness |  |

Figure Y: Box Plot of <Standard Brand> Cone Bioassay Results

Table X: <PBO Brand> Cone Bioassay Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Susceptible mosquito strain (<Strain>)** | **Mean (95% CI)** |
| **Pyrethroid-only panels** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| **Pyrethroid + PBO panels** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| **Untreated control** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| **Pyrethroid-only control** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| **Resistant mosquito strain**  **(<Strain>)** | **Mean (95% CI or SD)** |
| **Pyrethroid + PBO panels** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| **Untreated control** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| **Pyrethroid-only control** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |

Figure Y: Box Plot of <PBO Brand> Cone Bioassay Results Against Susceptible Mosquitoes

Figure Y: Box Plot of <PBO Brand> Cone Bioassay Results Against Resistant Mosquitoes

Table X: <CFP Brand> Tunnel Test Results Against Susceptible Strain

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Susceptible mosquito strain (<Strain>)** | **Mean (95% CI or SD)** |
| **Field-sampled ITN (Pyrethroid + Chlorfenapyr)** | **N=** |
| Mortality 72 hours |  |
| Net penetration |  |
| Blood fed |  |
| Blood-feeding inhibition |  |
| **Untreated control** | **N=** |
| Mortality 72 hours |  |
| Net penetration |  |
| Blood fed |  |

Table X: <CFP Brand> Tunnel Test Results Against Resistant Strain

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Resistant mosquito strain**  **(<Strain>)** | **Mean (95% CI or SD)** |
| **Field-sampled ITN (Pyrethroid + Chlorfenapyr)** | **N=** |
| Mortality 72 hours |  |
| Net penetration |  |
| Blood fed |  |
| Blood-feeding inhibition |  |
| **Untreated control** | **N=** |
| Mortality 72 hours |  |
| Net penetration |  |
| Blood fed |  |

Figure Y: Box Plot of <CFP Brand> Tunnel Test Results Against Susceptible Mosquitoes

Figure Y: Box Plot of <CFP Brand> Tunnel Test Results Against Resistant Mosquitoes

Table X: <PPF Brand> Bioassay Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Susceptible mosquito strain (<Strain>)** | **Mean (95% CI)** |
| **Field-sampled ITN** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| Mortality 72 hours |  |
| Number of mosquitos chambered | **N=** |
| Oviposition (day 8) |  |
| Oviposition inhibition (day 8) |  |
| **Untreated control** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| Mortality 72 hours |  |
| Number of mosquitos chambered | **N=** |
| Oviposition (day 8) |  |
| **Resistant mosquito strain**  **(<Strain>)** | **Mean (95% CI or SD)** |
| **Field-sampled ITN** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| Mortality 72 hours |  |
| Number of mosquitos chambered | **N=** |
| Oviposition (day 8) |  |
| Oviposition inhibition (day 8) |  |
| **Untreated control** | **N=** |
| Knock down 60 minutes |  |
| Mortality 24 hours |  |
| Mortality 72 hours |  |
| Number of mosquitos chambered | **N=** |
| Oviposition (day 8) |  |

Figure Y: Box Plot of <PPF Brand> Bioassay Results Against Susceptible Mosquitoes

Figure Y: Box Plot of <PPF Brand> Bioassay Results Against Resistant Mosquitoes

### Chemical Testing

<Results narrative>

Table X: <Standard Brand> Chemical Content Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **<Pyrethroid and loading dose ±25%>** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |

Figure Y: Box Plot of <Standard Brand> Chemical Content Results

Table X: <PBO Brand> Chemical Content Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Side panels**  **<Pyrethroid and loading dose ±25%>** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |
| **Roof panel**  **<Pyrethroid and loading dose ±25%>** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |
| **PBO  (PBO <loading dose ±25%>)** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |

Figure Y: Box Plot of <PBO Brand> Chemical Content Results

Table X: <CFP Brand> Chemical Content Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Alpha-cypermethrin 2.4g/kg ±25%** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |
| **Chlorfenapyr 4.8g/kg ±25%** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |

Figure Y: Box Plot of <CFP Brand> Chemical Content Results

Table X: <PPF Brand> Chemical Content Results

|  |  |
| --- | --- |
| **<Brand>** | **Pre-distribution** |
| **Alpha-cypermethrin 5.5g/kg ±25%** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |
| **Pyriproxyfen 5.5g/kg ±25%** | **N=** |
| Mean (95% CI) |  |
| Median [IQR] |  |

Figure Y: Box Plot of <PPF Brand> Chemical Content Results

## Conclusions