

Supporting Information

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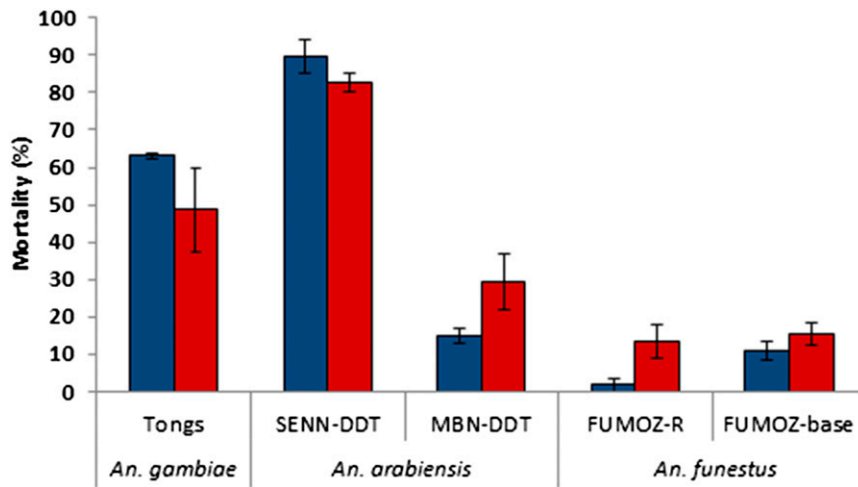


Fig. S1. Average (\pm SE) mortality and knockdown rates of two groups of 25 female pyrethroid-resistant anopheline strains from the Vector Control Research Unit (VCRU) measured 1 h (blue bars) or 24 h (red bars) after 1-h exposure to 0.05% deltamethrin papers in WHO test tubes.

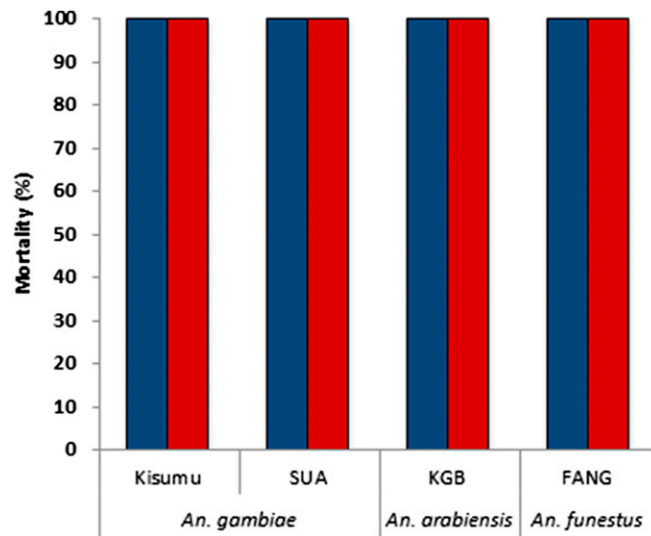


Fig. S2. Mortality rates of susceptible anopheline strains measured 24 h after 3-min exposure to PermaNet 2.0 netting containing 55 mg/m² deltamethrin (blue) or electrostatic netting containing 37 mg/m² deltamethrin (red).

Table S3. Origin, rearing, strain, and exposure specifics of the susceptible mosquitoes and the mosquito strains with undefined resistance used in the insecticide bioassays

Mosquito species	Susceptible mosquitoes					Mosquitoes with undefined resistance	
	<i>An. gambiae</i> s.s.	<i>An. gambiae</i> s.s.	<i>An. arabiensis</i>	<i>An. funestus</i>	<i>Ae. aegypti</i>	<i>Cx. quinquefasciatus</i>	<i>Cx. quinquefasciatus</i>
Mosquito strain	Kisumu	SUA	KGB	FANG	I2C-AE	I2C-CX	Field-collected
Origin	Kisumu, Kenya	Suakoko, Liberia	Kanyembe, Zimbabwe	Southern Angola	Aruba	USA	Kilombero, Tanzania
Rearing by	LSTM (LITE)	VCRU	VCRU	VCRU	In2Care	In2Care	N/A
Selected resistance	None	None	None	None	None (field-collected 01/2012)	None	None (field-collected 03/2014)
Resistance profile	Fully susceptible	Fully susceptible	Fully susceptible	Fully susceptible	Unknown	Fully susceptible	Fully susceptible
Exposure date	13/03/14	28/11/14	26/11/14	30/11/14	10/02/14	17/02/14	28/03/14
Mosquito age	3–6 d	2–4 d	2 d	2 d	3–6 d	3–4 d	2 d

LST (LITE), Liverpool School of Tropical Medicine (Liverpool Insect Testing Establishment).

Table S4. Origin, rearing, strain, resistance status, and exposure specifics of mosquito strains with well-defined resistance profiles used in the insecticide bioassays

Mosquito species	<i>An. gambiae</i> s.s.	<i>An. gambiae</i> s.s.	<i>An. arabiensis</i>	<i>An. arabiensis</i>	<i>An. funestus</i>	<i>An. funestus</i>
Mosquito strain	Tiassale	Tongs	SENN-DDT	MBN-DDT	Fumoz-R	Fumoz-base
Origin	Tiassale, Burkina Faso	Tongon, Ivory Coast	Sennar, Sudan	KwaZulu Natal, South Africa	Mozambique	Mozambique
Rearing by	LSTM (LITE)	VCRU	VCRU	VCRU	VCRU	VCRU
Selected resistance	Pyrethroid resistance	Multiple, no selection since 2010	DDT resistance (selected since 1995)	DDT resistance (selected until 2013)	Permethrin resistance (selected until 2001)	Naturally multiple resistant
Resistance profile	Kdr and P450s	Not known	Kdr, GSTs, P450s, esterases	Kdr, P450s, GSTs, esterases	P450s, GST	P450, GST
Exposure date	13/03/2014	26/11/14	25/11/14	01/12/2014	25/11/14	27/11/14
Mosquito age	2–4 d	3 d	3 d	2 or 3 d	2–4 d	2–4 d

LST (LITE), Liverpool School of Tropical Medicine (Liverpool Insect Testing Establishment).