

Table SI. Scabies control programmes over the past 40 years

Year	Country and population	Drugs used and modalities	Initial prevalence of scabies at baseline, %	Reduction in scabies outcome	Initial prevalence of impetigo at baseline, %	Reduction on impetigo outcome	Long-term effect	Ref.
1970s	Kuna Indian population San Blas archipelago, Guna Yala region, Panama n = 178 (Wichub Huala island) n = 140 (Nahlonnega island)	<i>Lindane MDA</i> Treatment of all community members (Wichub Huala) or only those with clinical signs (Nahlonnega) 1% lindane lotion One application head-to-toe (16–20H) <i>Permethrin MDA</i> Treatment of all community members 5% Permethrin cream One application head-to-toe (8–14H) No antibiotic used	42 (Wichub Huala) 28 (Nahlonnega)	98% cure rate at W10 and W22 (Wichub Huala) 50% cure rate at W10 (Nahlonnega)	-	-	Controlled for 5 years (Wichub Huala) Returned to baseline in 6 months (Nahlonnega)	(97) (110)
1986–89	Kuna Indian population San Blas archipelago, Guna Yala region, Panama n = 756 (Ticantiki island)	<i>Permethrin MDA</i> Treatment of all community members One application head-to-toe (8–14H) No antibiotic used	33	97% cure rate at M3 (prevalence 1%)	32	94% cure rate at M3 (prevalence 2%)	Scabies prevalence was maintained at 1.5% for 3 years But scabies resurgence was observed after disruption of permethrin supply (prevalence 12%)	(110)
1994	Aboriginal community, Croker Island, Northern Territory, Australia n = 250	<i>Permethrin MDA</i> Treatment of all community members 5% Permethrin cream One application head-to-toe New treatment if re-screen with scabies during the 25-month study period Intramuscular (IM) Benzathine penicillin if impetigo	28.8 (adults) 32 (children)	100% cure rate at M25 for adults (prevalence 0%) 81% cure rate at M25 for children (prevalence 6%)	69.4 (children)	57% cure rate at M9/16 in children (prevalence 30%)	Prevalence remained stable for the entire study (25 months)	(111)
Late 1990s	Aboriginal community, Wadeye region, Northern Territory, Australia n = 2,200	<i>Permethrin MDA</i> Treatment of infested children under 5 years old and adults in their household contacts 5% Permethrin cream One application head-to-toe IM benzathine penicillin if impetigo Post-intervention study (M12): second community treatment day with 5% permethrin	35	91% cure rate at W6 (prevalence 3%)	12	92% cure rate at W6 (prevalence 1%)	Prevalence maintained at M4 and M7 At M15 scabies prevalence reduced from 35% at baseline to 11.8% and impetigo from 11.5% to 2%	(112) (113)
1997–2000	Five small lagoon islands (Sulufou, Foueda, Nulieni, Funafou, Addagege) in Lau Lagoon, Malaita Province, Solomon Islands n = 1,558	<i>Ivermectin MDA</i> Treatment of all community members (Sulufou) Community control (Foueda) 0.16–0.25 mg/kg oral ivermectin Two treatments 2 weeks apart (only one treatment in Addagege) 5% permethrin cream if <15 kg or pregnant women Children only were re-examined at 6-monthly intervals and those with scabies and their household contacts were re-treated No antibiotic used Post-intervention study (Y15): second community follow-up n = 338	25	96% cure rate at Y3 (prevalence less than 1%)	40	48% cure rate at Y3 (prevalence less than 21%) Proportion of children with open sores, median number of sores, microscopic hematuria (measure of kidney disease) reduced significantly	More than 15 years later, only a single case of scabies was found (impetigo prevalence 8.8%)	(30) (114)
2001–2005	50 primary healthcare units in 10 districts of Zanzibar, Tanzania (30 PHCUs in Lau Lagoon, Malaita Province, Solomon Islands, 20 in Pemba) n = NA	<i>Ivermectin MDA</i> During annual MDA for lymphatic filariasis elimination Albendazole 400 mg and oral 0.15–0.2 mg/kg ivermectin One annual dose 5-year period	-	68–98% cure rate	-	-	-	(102)
2004–07	Remote Aboriginal communities, East Arnhem Region, Northern Territory, Australia n = 2,329	<i>Permethrin MDA</i> Permethrin 5% cream One annual dose to all community members No antibiotic systematically used	16	19% cure rate at M3 (prevalence 13%) 0% cure rate at Y3 (prevalence 16%)	46.7	31% cure rate at M3 (prevalence 32.4%) 25% cure rate at Y3 (prevalence 35%)	-	(115) (116)

Table SI. Contd.

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2010–11	Aboriginal and Torres Strait Islander communities in Galiwinku, <i>Elcho Island</i> , Northern Territory, Australia n = 2,121	<i>Ivermectin</i> MDA Treatment of all community members 0.2 mg/kg oral ivermectin Two treatments 12 months apart – with an additional dose 10–42 days later if scabies was diagnosed 5% permethrin cream if <15 kg or pregnant or and breastfeeding women 10% crotamiton for 3 days if <3.5 kg In parallel with a <i>Strongyloides</i> MDA Oral albendazole 200 (6–10 kg)–400 (10–>15 kg) mg	4	75% cure rate at M6 (prevalence 1%)	–	–	Scabies prevalence increased to 9% at 12 months and then reduced to 3% at 18 months after the second MDA	(102)
2012–13	Three island communities in Fiji n = 2,051	<i>Ivermectin</i> and <i>permethrin</i> MDA RCT Treatment of all community members by topical 5% permethrin (Dravuni, Buliva, Ono) or ivermectin (Batiki, Nairai) or standard care (Moturiki) Second treatment at D7–10 for infested people only 5% permethrin cream if <15 kg or pregnant or and breastfeeding women No antibiotics used	32 (ivermectin group) 42 (permethrin group) 37% (Standard care group)	94% cure rate ivermectin group at M12 (prevalence 2%) 62% cure rate permethrin group at M12 (prevalence 16%) 49% cure rate standard care group at M12 (prevalence 19%)	24.6 (ivermectin group) 24.6 (permethrin group) 21.4 (standard care group)	67% cure rate ivermectin group at M12 (prevalence 8%) 54% cure rate permethrin group at M12 (prevalence 11.4%) 32% cure rate standard care group at M12 (prevalence 14.6%)	At 24 months, scabies and impetigo prevalences were 3.6% and 2.6% (ivermectin group) 13.5% and 8.9% (permethrin group) 15.2% and 13% (Standard care group)	(36) (99)
2012–15	8 villages, Kongwa District, Tanzania n = 3,920	<i>Ivermectin</i> MDA During annual MDA for lymphatic filariasis Oral ivermectin, one annual dose 4 year period	4.4	80.9% cure rate at Y2 (prevalence 0.84%)	–	–	43.2% cure rate at Y3 (prevalence 2.5%) 34.1% cure rate at Y4 (prevalence 2.9%)	(100)
2014–16	Asylum-seekers (Eritrean and Ethiopian) in 3 centres in the Netherlands (Ter Apel, Budel, Veenhuizen) n = 2,866	<i>Ivermectin</i> MDA Treatment of all community by 0.2 mg/kg ivermectin 5% permethrin cream if <15 kg or pregnant or and breastfeeding women Second treatment at W2 for infested people only	42	% cure rate at M12 (prevalence 27.2%)	–	–	–	–
2016–18	Six communities in Malaita province of the Solomon Islands n = 1,291	<i>Ivermectin</i> MDA <i>Ivermectin</i> and <i>azithromycin</i> MDA Treatment of all community members by oral 0.2 mg/kg ivermectin or by oral ivermectin and 30 mg/kg azithromycin 5% permethrin cream if <15 kg or pregnant or and breastfeeding women Second treatment at D7 for infested people only	11.8 (ivermectin group) 9.2 (ivermectin and azithromycin group)	91.5% cure rate ivermectin group at M12 (prevalence 1%) 92.4% cure rate at M12 (ivermectin and azithromycin group) (prevalence 0.7%)	10.1 (ivermectin group) 12.1 (ivermectin and azithromycin group)	75.2% cure rate ivermectin group at M12 (prevalence 2.5%) 72.7% cure rate at M12 (ivermectin and azithromycin group) (prevalence 3.3%)	–	(37)

– : not applicable or no data; MDA: Mass Drug Administration; H: hour; W: week; IM: intramuscular; Y: year; PHCU: Primary HealthCare Unit; RCT: Randomized Clinical Trial; D: day.