

Appendix B. Characteristics of studies reviewed on prevalence and pattern of waterborne parasitic infections in eastern Africa. 2019.

Article S/No.	Study country	Study year	Study population and sample size	Parasite(s)/Disease(s) studied	Diagnostic test	Prevalence estimates (%), otherwise, stated	Reference
1	BURUNDI		General population	<i>Schistosoma mansoni</i>	Kato-Katz	17, 19, 26, 33 four areas	Gryseels 1991
2	ETHIOPIA	2015/2016	323	<i>Entamoeba histolytica</i> /dispar trophozoite <i>E. histolytica</i> /dispar cyst <i>Giardia lamblia</i> trophozoite <i>G. lamblia</i> cyst <i>Cryptosporidium parvum</i> <i>Isospora belli</i>		7.1 4.6 4.8 0.6 5.9 2.8	Gedle et al.2017

3		2009/2011	520 HIV/AIDS patients	<i>Cryptosporidium parvum</i>	PCR-RFLP	26.9	Adamu et al., 2014
4		2011/2012	371 family members	<i>Schistosoma mansoni</i>	Kato-Katz	73.9	Abebe et al., 2014
5			Village-to-village search for cases	Dracunculiasis		21 cases	Jemaneh and Tatischeff 1993
6			311 banana plantation residents	<i>Schistosoma mansoni</i> <i>Entamoeba histolytica</i>		1.9 0.6	Wondimagegnehu et al., 1992
7		2018	561 under-five children	<i>Entamoeba histolytica/dispar</i> <i>Giardia lamblia</i>		15.3 10.2	Gadisa and Jote 2019
8		2016	Schoolchildren	<i>Entamoeba histolytica/dispar</i> <i>Giardia lamblia</i>		5.21 4.69	Sisay and Lemma 2019
9		2017	597 school-aged children	<i>Schistosoma mansoni</i>	Kato-Katz	12.9	Shumbej and Girum 2019

10		2008	491 adult participants	Schistosomiasis	Stool exam	41.3	Nyantekyi et al., 2014
11		2015	374 schoolchildren	<i>Schistosoma mansoni</i> Soil-transmitted helminths <i>Ascaris lumbricoides</i> <i>Trichuris trichiura</i> Hookworms	Formol-ether concentration	31% 52.4% 44.4% 11% 7.7%	Tadege and Shimelis 2017
12		2015	302 School-aged children	Soil-transmitted helminths <i>Ascaris lumbricoides</i> <i>Trichuris trichiura</i>	Kato-Katz	41.7%. 19.8% 15.6%	Emana et a., 2015
13			393 schoolchildren	<i>Giardia duodenalis</i> <i>Cryptosporidium</i> spp	RT-PCR	55% 4.6%	De Lucio et al., 2016
14		2001-2016	National	Malaria		4.31% to 2.9%	Taffese et al., 2018
15	KENYA	2012/2014	Pre-school aged children	<i>Schistosoma mansoni</i>	Kato-Katz	18%	Won et al., 2017

			3612 samples		Antibody response	50%	
16			285 HIV patients	<i>Entamoeba histolytica/dispar</i> <i>Giardia lamblia</i> <i>Entamoeba coli</i>	Fresh stool wet mounts; Modified ZN; Formol-ether conc.	58.3 16.6 5.9	Kipyegen et al., 2012
17		2001	1246 children 10–12 years	<i>Schistosoma mansoni</i>	Kato-Katz	16.3	Handzel et al., 2003
18		2012	4931 all age	Soil-transmitted helminths Hookworms <i>Ascaris lumbricoides</i> <i>Trichuris trichiura</i>	Kato-Katz	32.7 16.7 17.9 6.1	Freeman et al., 2015
19		2012	21528 school	Soil-transmitted	Kato Katz	32.4	Mwandawiro et al.,

			children	helminths Hookworms <i>A. lumbricoides</i> <i>T. trichiura</i> <i>S. mansoni</i> <i>S. haematobium</i>		15.6 18.0 6.6 2.1 14.8	2013
20			692 pre-school & school children	Soil transmitted helminths <i>Ascaris spp.</i> <i>Trichuris spp.</i> Hookworm	Kato Katz	40.5 & 40.7 24.1 & 22.7 24.0 & 28.8 < 0.1	Davis, et al. 2014
21	RWANDA	2010	109 students Among infected:	Intestinal parasites <i>E. histolytica</i> <i>Trichomonas intestinalis</i> and <i>A. lumbricoides</i> <i>Giardia duodenalis</i> <i>Ancylostoma duodenale</i>	Saline smear	50.5 54.5 20 3.6 1.8	Niyizurugero et al., 2013

22		2014/2015	Two districts	Intestinal worms and parasites in general		9997 cases	Stone and Ndagijimana 2018
23	SUDAN		300 <5-year children	Giardiasis <i>Entamoeba histolytica</i> <i>Entamoeba coli</i>	Stool exam	21.1 0.7 2.7	Karrar and Rahim 1995
24		2002	National estimate	Malaria	Hospital data + simulation	9 million episodes	Abdalla 2007
25	TANZANIA	2009	388 adult population	<i>Schistosoma mansoni</i>	Abdominal ultrasound	42.2	Kaatano et al., 2015
26		1996	Schoolchildren 284, 350	Schistosomiasis • Urinary • Intestinal		37, 86.3 22.9, 43.5	Poggensee et al., 2004
27		2010/2011	185 humans around national park	<i>Cryptosporidium spp.</i>		4.3	Parsons et al., 2015
28		2015/2016	2000 households	Malaria	Blood slide	13%	Khatib et al., 2018

			randomly selected		microscopy		
29	UGANDA		642 people	<i>Schistosoma mansoni</i>	Stool exam	81.6 (males) 81.3 (females)	Kabatereine et al., 1992
30			446 > 6 years old people	<i>Schistosoma mansoni</i>	Modified Kato-Katz	88.6	Tukahebwa et al., 2013
31		1996/1997	Fishing community	<i>Schistosoma mansoni</i>		72	Kabatereine et al., 2004
32			301 patients presenting with clinical signs	<i>Entamoeba histolytica</i>	Routine microscopy	19.93%	Ekou et al., 2012
33		2007	108 people living near national park	<i>Giardia duodenalis</i>	Stool RT-PCR	40.7%	Johnston et al., 2010
34	SOMALIA		General population in two localities	Schistosomiasis (urinary)		27.2% and 58.1%	Arfaa F 1975
35			Farmers from many parts	<i>Schistosoma haematobium</i>		65.8%, 48.9% and 60.;7%	Koura et al., 1981

36			Two institutions	Soil-transmitted helminths or protozoa		About 85%	Ilard et al., 1987
37	MAURITIUS		50 schools	<i>Schistosoma</i> <i>haematobium</i>		15% - >50%	Cowper 1953
38	ERITREA		Country average	<i>Schistosoma mansoni</i>		2.4%	Ministry of Education, 2002
39			Country average	<i>Schistosoma mansoni</i>		5%	Lai et al., 2015
40			75 vegetable farmers using wastewater irrigation	Giardiasis		45%	Srikanth amd Naik 2004
41	MADAGASCAR	2015	1958 school-age children	<i>Schistosoma</i> <i>haematobium</i> <i>Schistosoma mansoni</i> Soil-transmitted helminths	Kato-Katz	30.5 % 5.0 % 4.7 %.	Rasoamanahaja et al., 2016

42			399 school-age children	<i>Schistosoma haematobium</i> <i>Schistosoma mansoni</i>	Urine filtration Circulating cathodic antigen (CCA) and Kato-Katz	0 93.7%	Spencer et al., 2017
43		1999-2017	Eritrean migrants	Malaria	Hospital records	146 cases	Schlagenhauf et al., 2018
44	SEYCHELES	1988		<i>T trichiura</i> , Hookworms <i>Ascaris lumbricoides</i> , <i>Giardia intestinalis</i> <i>Entamoeba histolytica</i>	84% 22% 8% 6% 5%		Kitua et al., 1988
45				<i>Ascaris lumbricoides</i> <i>Trichuris trichiura</i>	17.7% 53.3%		Albonico et al., 1996

				Hookworms	6.3%		
				<i>Strongyloides stercoralis</i>	1.1%		
				<i>Entamoeba histolytica</i>	4.6%		
				<i>Giardia intestinalis</i>	3.3%		
46		2010-2016	Hospital uncomplicated malaria	Malaria	1.4 - 2.0%		Ihantamalala et al., 2018
47	DJIBOUTI	1998-2009	Hospital febrile cases	Malaria	<5%	Blood slide microscopy	Ollivier et al., 2011