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Supplemental Material

Adoption of Point-of-Use Chlorination for Household Drinking Water Treatment: A Systematic Review

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Figure S5. Last measured adoption over time by study location. “Institution” includes schools and health care facilities; “Humanitarian” includes an internally displaced persons camp and post-disaster relief. The point sizes are scaled to indicate relative sample size (of the group(s) receiving chlorine only). Open circles indicate that the data point is reported as multiple adoption measures combined over the months of follow-up up until the time point shown. Closed circles are a single time-point result. This plot includes all groups listed in Table 1. Data are available in the Supplemental Excel File, Excel Table S1.

Table S1. Summary data for Figure 3 (Weighted (by sample size) box plots showing relationship between contact frequency and final measured adoption).

Table S2. Summary data for Figure S2 (Weighted (by sample size) box plots showing relationship between type of chlorine product and final measured adoption).

References

Additional File- Excel Document

Full search terms

Set 1

"Drinking water" OR "Potable water" OR "Tap water" OR "Household water" OR "Domestic water"

Set 2

"Chemical disinfectant" OR Chlorin* OR Chlorate OR Chlorite OR Disinfec* OR Hypochlorite OR "Sodium hypochlorite" OR "Calcium hypochlorite" OR "Sodium dichloroisocyanurate" OR NaDCC OR trichlor OR Aquatab OR Waterguard OR WaterGuard OR Klorin OR Pur OR "Water quality" OR "Free residual chlorine" OR "Free chlorine"

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Afghanistan OR Benin OR Burkina Faso OR Burundi OR "Central African Republic" OR Chad OR Congo OR Zaire OR Eritrea OR Ethiopia OR Gambia OR Guinea OR Guinea-Bissau OR Haiti OR Korea OR Liberia OR Madagascar OR Malawi OR Mali OR Mozambique OR Nepal OR Niger OR Rwanda OR Sierra Leone OR Somalia OR South Sudan OR Sudan OR Syria OR Tajikistan OR Tanzania OR Togo OR Uganda OR Yemen OR Angola OR Bangladesh OR Bhutan OR Bolivia OR "Cabo Verde" OR "Cape Verde" OR Cambodia OR Cameroon OR Comoros OR Congo OR "Côte d'Ivoire" OR Djibouti OR Egypt OR "El Salvador" OR Swaziland OR Eswatini OR Ghana OR Honduras OR India OR Indonesia OR Kenya OR Kiribati OR Kyrgyzstan OR "Kyrgyz Republic" OR Lao OR Lesotho OR Mauritania OR Micronesia OR Moldova OR Mongolia OR Morocco OR Myanmar OR Burma OR Nicaragua OR Nigeria OR Pakistan OR "Papua New Guinea" OR Philippines OR "São Tomé and Principe" OR Senegal OR "Solomon Islands" OR Sudan OR Timor-Leste OR Tunisia OR Ukraine OR Uzbekistan OR Vanuatu OR Vietnam OR "West Bank" OR Gaza OR Zambia OR Zimbabwe OR Albania OR Algeria OR "American Samoa" OR Argentina OR Armenia OR Azerbaijan OR Belarus OR Belize OR "Bosnia and Herzegovina" OR Yugoslavia OR Botswana OR Brazil OR Bulgaria OR China OR Colombia OR "Costa Rica" OR Cuba OR Dominica OR "Dominican Republic" OR Ecuador OR "Equatorial Guinea" OR Fiji OR Gabon OR Georgia OR Grenada OR Guatemala OR Guyana OR Iran OR Iraq OR Jamaica OR Jordan OR Kazakhstan OR Kosovo OR Lebanon OR Libya OR Malaysia OR Maldives OR "Marshall Islands" OR Mauritius OR Mexico OR Montenegro OR Namibia OR Nauru OR "North Macedonia" OR Paraguay OR Peru OR Romania OR Russia OR Samoa OR Serbia OR "South Africa" OR "Sri Lanka" OR "St. Lucia" OR "St. Vincent and the Grenadines" OR Suriname OR Thailand OR Tonga OR Turkey OR Turkmenistan OR Tuvalu OR Venezuela

Source: World Bank, 2019[38]

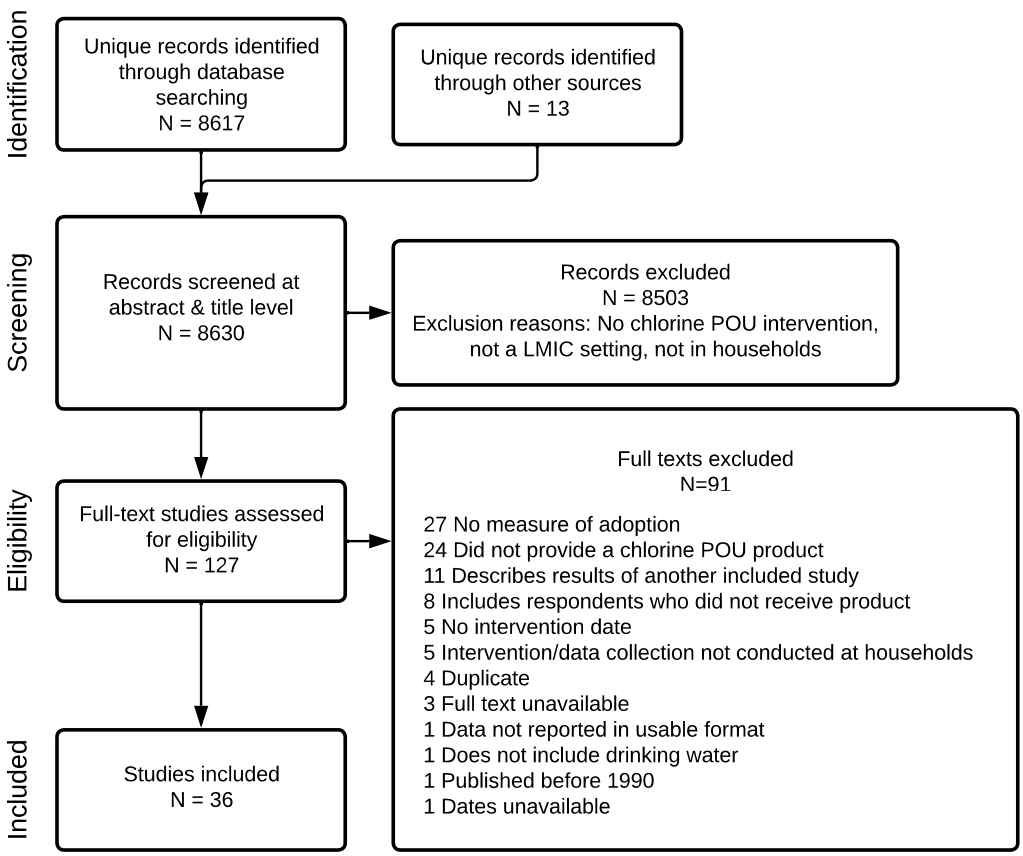

Figure S1. PRISMA flow diagram

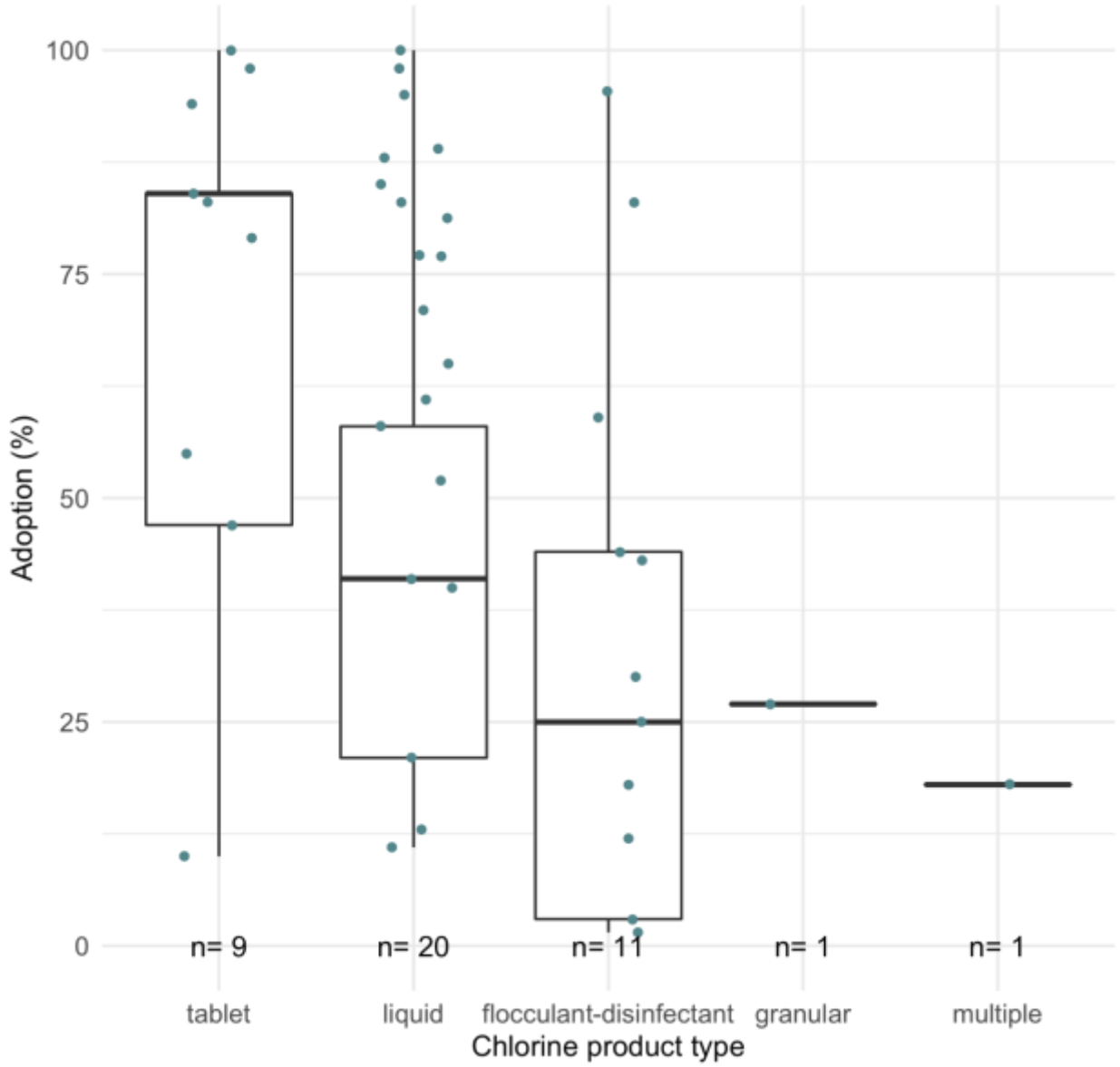

Figure S2. Weighted box plots showing the relationship between the type of chlorine product and final measured adoption, restricted to only groups that used free chlorine residual (FCR) or total chlorine to measure adoption. This excludes Opryszko et al (2010)[25], Albert et al (2010)[1], and Sugar et al (2017)[36]. Dots show each group average. Groups were weighted by sample size to calculate the 25th, 50th, and 75th percentiles displayed above as the midline and box limits. The whiskers extend to data within 1.5 times the interquartile range (IQR) above and below the 75th and 25th percentiles. This includes studies that report single-time-point and pooled adoption measures. Summary data are presented in Table S2.

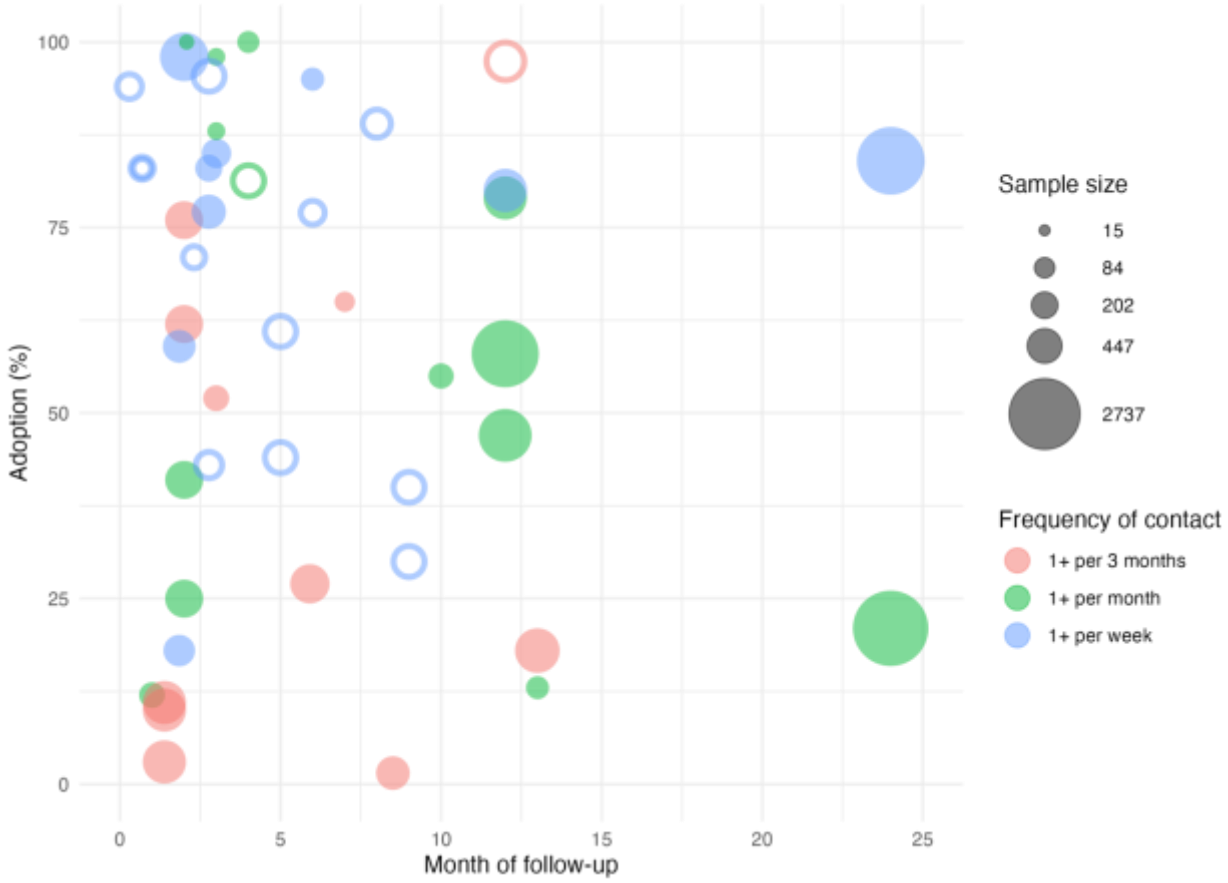

Figure S3. Last measured adoption over time by frequency of contact with study staff. The point sizes are scaled to indicate relative sample size (of the group(s) receiving chlorine only). Open circles indicate that the data point is reported as multiple adoption measures combined over the months of follow-up up until the time point shown. Closed circles are a single time-point result. This plot includes all groups listed in Table 1. Data are available in the Supplemental Excel File, Excel Table S1.

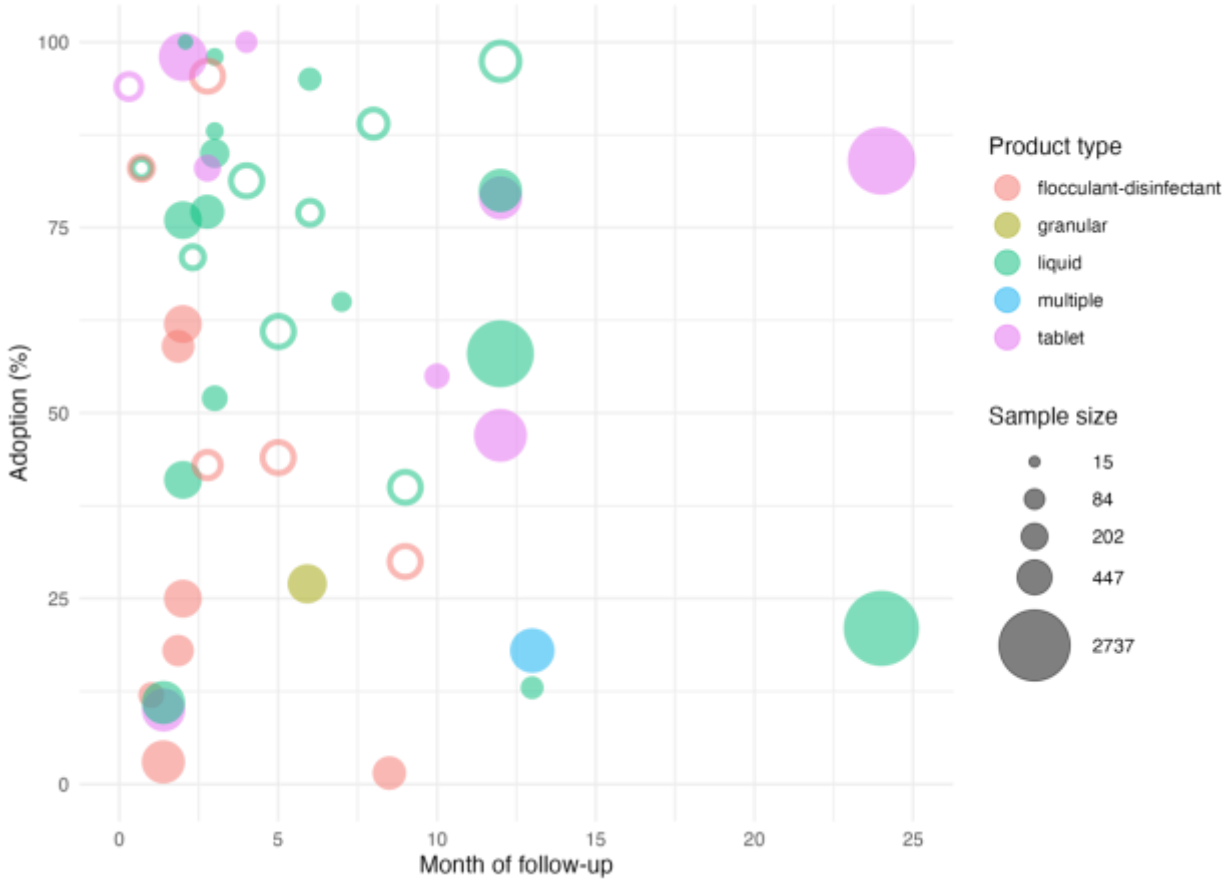

Figure S4. Last measured adoption over time by type of chlorine POU product. The point sizes are scaled to indicate relative sample size (of the group(s) receiving chlorine only). Open circles indicate that the data point is reported as multiple adoption measures combined over the months of follow-up up until the time point shown. Closed circles are a single time-point result. This plot includes all groups listed in Table 1. Data are available in the Supplemental Excel File, Excel Table S1.

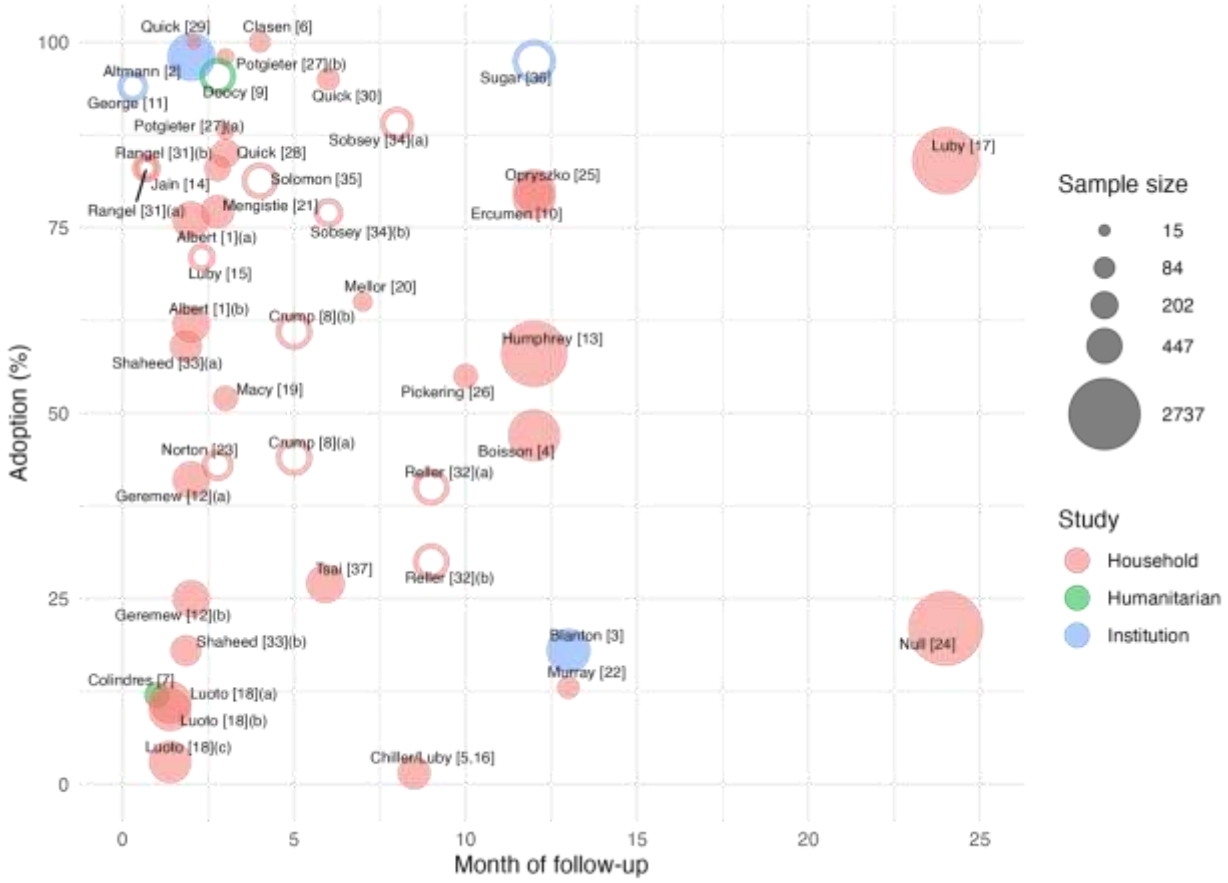

Figure S5. Last measured adoption over time by study location. “Institution” includes schools and health care facilities; “Humanitarian” includes an internally displaced persons camp and post-disaster relief. The point sizes are scaled to indicate relative sample size (of the group(s) receiving chlorine only). Open circles indicate that the data point is reported as multiple adoption measures combined over the months of follow-up up until the time point shown. Closed circles are a single time-point result. This plot includes all groups listed in Table 1. Data are available in the Supplemental Excel File, Excel Table S1.

Table S1. Summary data for Figure 3 (Weighted (by sample size) box plots showing relationship between contact frequency and final measured adoption)

Contact Frequency	25th percentile	Median	75th percentile	Mean	Standard deviation
1+ per 3 months	3	11	18	14	11.6
1+ per month	21	47	58	42.7	21.1
1+ per week	71	84	85	76.2	21.4

Table S2. Summary data for Figure S2 (Weighted (by sample size) box plots showing relationship between type of chlorine product and final measured adoption)

Product Category	25th percentile	Median	75th percentile	Mean	Standard deviation
tablet	47	84	84	70.2	26.8
liquid	21	41	58	42.3	23.9
flocculant-disinfectant	3	25	44	29	27.9
granular	NA	27	NA	27	0
multiple	NA	18	NA	18	0

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