Table S1. Relative abundances of the bacterial groups across all of the hands sampled and within individual categories

			Sex		Time since last hand washing			Dominant vs. nondominant hand		Sex and time since last hand washing					
Phylum or subphylum		All Samples	Female	Male	<2 hours	2-4 hours	>4 hours	Dominant	Nondominant	Female (<2 h)	Female (2-4 h)	Female (>4 h)	Male (<2 h)	Male (2-4 h)	Male (>4 h)
	No. of hand samples:	*102*	*48*	*54*	*60*	*30*	*12*	*51*	*51*	*34*	*8*	*6*	*26*	*22*	*6*
	No. of sequences:	*331619*	*157331*	*1742088*	*195250*	*97082*	*39287*	*163692*	*167927*	*111515*	*26346*	*19470*	*83735*	*70736*	*19817*
Acidobacteria		0.124 (0.02)	0.137 (0.02)	0.108 (0.04)	0.140 (0.03)	0.104 (0.04)	0.084 (0.02)	0.116 (0.03)	0.130 (0.04)	0.138 (0.03)	0.138 (0.07)	0.134 (0.04)	0.142 (0.07)	0.087 (0.04)	0.035 (0.02)
Actinobacteria	Actinomycineae	0.299 (0.03)	0.318 (0.05)	0.266 (0.05)	0.324 (0.05)	0.264 (0.06)	0.197 (0.06)	0.282 (0.05)	0.299 (0.05)	0.379 (0.06)	0.192 (0.06)	0.191 (0.06)	0.250 (0.07)	0.302 (0.08)	0.203 (0.11)
	Corynebacterium	4.261 (0.41)	3.107 (0.38)	5.584 (0.70)	4.153 (0.63)	5.030 (0.52)	3.529 (0.92)	4.791 (0.69)	3.946 (0.48)	3.184 (0.53)	3.012 (0.51)	2.820 (0.98)	5.479 (1.28)	6.091 (0.64)	4.225 (1.63)
	Frankineae	0.149 (0.02)	0.176 (0.02)	0.121 (0.02)	0.130 (0.02)	0.173 (0.03)	0.176 (0.05)	0.139 (0.02)	0.162 (0.02)	0.142 (0.02)	0.224 (0.05)	0.294 (0.07)	0.114 (0.03)	0.146 (0.04)	0.061 (0.04)
	Intrasporangiaceae	0.274 (0.05)	0.380 (0.10)	0.152 (0.03)	0.198 (0.04)	0.251 (0.06)	0.654 (0.41)	0.322 (0.10)	0.216 (0.04)	0.219 (0.05)	0.405 (0.17)	1.315 (0.73)	0.170 (0.05)	0.170 (0.03)	0.005 (0.01)
	Proprionibacterium	31.624 (2.24)	27.238 (2.70)	37.624 (3.48)	27.742 (2.96)	34.937 (3.43)	50.222 (7.30)	30.022 (2.90)	35.353 (3.53)	21.639 (2.57)	33.810 (7.30)	48.616 (5.90)	36.087 (5.70)	35.530 (3.66)	51.801 (14.12)
	Other	6.117 (0.47)	6.764 (0.78)	5.462 (0.54)	6.354 (0.70)	6.649 (0.73)	3.347 (0.56)	6.336 (0.73)	5.972 (0.62)	6.875 (1.00)	7.621 (1.81)	4.449 (0.28)	5.641 (0.93)	6.139 (0.57)	2.265 (0.92)
Bacteroidetes	Capnocytophaga	0.167 (0.02)	0.205 (0.04)	0.145 (0.02)	0.177 (0.04)	0.197 (0.03)	0.105 (0.03)	0.153 (0.03)	0.200 (0.04)	0.235 (0.06)	0.124 (0.03)	0.180 (0.02)	0.098 (0.03)	0.235 (0.05)	0.030 (0.02)
	Chryseobacterium	0.609 (0.17)	1.009 (0.34)	0.281 (0.04)	0.865 (0.29)	0.352 (0.06)	0.284 (0.07)	0.791 (0.31)	0.514 (0.16)	1.287 (0.50)	0.494 (0.14)	0.309 (0.08)	0.288 (0.07)	0.278 (0.05)	0.258 (0.13)
	Hymenobacter	0.174 (0.03)	0.232 (0.06)	0.110 (0.03)	0.147 (0.04)	0.218 (0.07)	0.156 (0.05)	0.194 (0.05)	0.153 (0.04)	0.182 (0.07)	0.407 (0.15)	0.196 (0.05)	0.100 (0.03)	0.119 (0.05)	0.117 (0.08)
	Porphyromonas	0.382 (0.07)	0.542 (0.12)	0.251 (0.05)	0.446 (0.11)	0.358 (0.06)	0.243 (0.04)	0.391 (0.06)	0.410 (0.12)	0.610 (0.18)	0.437 (0.11)	0.335 (0.05)	0.221 (0.08)	0.316 (0.08)	0.152 (0.03)
	Prevotella	1.032 (0.18)	1.285 (0.33)	0.741 (0.14)	1.006 (0.27)	1.071 (0.28)	0.871 (0.25)	0.753 (0.11)	1.285 (0.35)	1.200 (0.44)	1.538 (0.69)	1.315 (0.41)	0.741 (0.24)	0.825 (0.21)	0.436 (0.18)
	Saprospirales	0.139 (0.02)	0.172 (0.03)	0.098 (0.02)	0.120 (0.03)	0.138 (0.03)	0.202 (0.08)	0.114 (0.02)	0.155 (0.04)	0.149 (0.04)	0.170 (0.05)	0.320 (0.13)	0.081 (0.02)	0.121 (0.04)	0.086 (0.07)
	Other	0.466 (0.07)	0.645 (0.13)	0.284 (0.05)	0.475 (0.11)	0.504 (0.09)	0.289 (0.06)	0.438 (0.10)	0.498 (0.11)	0.673 (0.19)	0.710 (0.16)	0.351 (0.06)	0.205 (0.04)	0.396 (0.11)	0.228 (0.10)
Alphaproteobacteria	Acetobacterales	0.184 (0.03)	0.184 (0.03)	0.195 (0.06)	0.221 (0.05)	0.135 (0.04)	0.174 (0.06)	0.149 (0.04)	0.235 (0.05)	0.167 (0.04)	0.235 (0.09)	0.191 (0.04)	0.295 (0.11)	0.082 (0.02)	0.157 (0.12)
	Bradyrhizobiales	1.180 (0.16)	1.468 (0.29)	0.966 (0.13)	1.222 (0.24)	1.304 (0.23)	0.935 (0.27)	1.398 (0.29)	1.067 (0.14)	1.470 (0.41)	1.611 (0.41)	1.181 (0.46)	0.883 (0.12)	1.143 (0.28)	0.694 (0.29)
	Caulobacterales	0.227 (0.03)	0.271 (0.06)	0.183 (0.03)	0.264 (0.06)	0.172 (0.04)	0.184 (0.06)	0.279 (0.06)	0.179 (0.03)	0.317 (0.09)	0.192 (0.06)	0.144 (0.04)	0.192 (0.04)	0.162 (0.05)	0.223 (0.12)
	Rhizobiaceae	0.106 (0.02)	0.125 (0.03)	0.077 (0.03)	0.101 (0.02)	0.112 (0.05)	0.066 (0.02)	0.112 (0.03)	0.094 (0.03)	0.123 (0.04)	0.143 (0.05)	0.103 (0.04)	0.071 (0.01)	0.096 (0.08)	0.030 (0.02)
	Rhodobacterales	0.392 (0.05)	0.406 (0.06)	0.386 (0.08)	0.350 (0.06)	0.474 (0.11)	0.422 (0.14)	0.434 (0.08)	0.371 (0.06)	0.430 (0.09)	0.273 (0.06)	0.510 (0.07)	0.240 (0.04)	0.580 (0.16)	0.334 (0.28)
	Sphingomonadales	0.604 (0.06)	0.767 (0.09)	0.428 (0.06)	0.587 (0.08)	0.589 (0.09)	0.667 (0.15)	0.660 (0.09)	0.533 (0.07)	0.714 (0.12)	0.837 (0.15)	0.954 (0.13)	0.413 (0.08)	0.459 (0.10)	0.385 (0.21)
	Other	0.324 (0.07)	0.329 (0.06)	0.330 (0.14)	0.303 (0.05)	0.173 (0.03)	0.897 (0.62)	0.422 (0.14)	0.248 (0.05)	0.354 (0.08)	0.289 (0.08)	0.258 (0.04)	0.234 (0.05)	0.112 (0.03)	1.525 (1.25)
Betaproteobacteria	Burkholderiales	3.143 (0.28)	3.598 (0.39)	2.574 (0.39)	2.767 (0.22)	3.569 (0.65)	3.388 (1.35)	3.185 (0.36)	3.015 (0.45)	3.257 (0.34)	4.979 (1.35)	3.026 (0.44)	2.098 (0.20)	2.828 (0.61)	3.744 (2.78)
	Neisseriales	2.299 (0.37)	2.476 (0.65)	2.347 (0.39)	1.888 (0.39)	3.001 (0.81)	3.511 (1.51)	2.231 (0.44)	2.646 (0.64)	2.012 (0.64)	4.963 (2.18)	0.531 (0.13)	1.717 (0.34)	1.970 (0.36)	6.439 (2.63)
	Other	0.092 (0.02)	0.101 (0.02)	0.082 (0.05)	0.080 (0.02)	0.121 (0.07)	0.066 (0.02)	0.100 (0.05)	0.079 (0.02)	0.105 (0.03)	0.092 (0.04)	0.093 (0.03)	0.047 (0.01)	0.136 (0.11)	0.041 (0.03)
Deltaproteobacteria	Myxococcales	0.036 (0.01)	0.047 (0.01)	0.023 (0.01)	0.029 (0.01)	0.044 (0.01)	0.041 (0.02)	0.031 (0.01)	0.040 (0.01)	0.042 (0.02)	0.062 (0.03)	0.046 (0.03)	0.012 (0.01)	0.034 (0.02)	0.035 (0.02)

	Other	0.014 (0.00)	0.016 (0.01)	0.013 (0.00)	0.017 (0.01)	0.012 (0.00)	0.008 (0.00)	0.013 (0.01)	0.017 (0.00)	0.020 (0.01)	0.008 (0.00)	0.010 (0.01)	0.014 (0.01)	0.014 (0.01)	0.005 (0.00)
Epsilonproteobacteria	Other	0.038 (0.01)	0.046 (0.01)	0.030 (0.01)	0.033 (0.01)	0.053 (0.02)	0.023 (0.01)	0.038 (0.01)	0.040 (0.01)	0.043 (0.01)	0.059 (0.03)	0.041 (0.02)	0.020 (0.01)	0.050 (0.03)	0.005 (0.01)
Gammaproteobacteria	Enterobacteriales	0.566 (0.12)	0.901 (0.35)	0.224 (0.05)	0.532 (0.23)	0.271 (0.06)	1.508 (1.02)	0.787 (0.35)	0.354 (0.07)	0.799 (0.40)	0.289 (0.07)	2.691 (1.96)	0.166 (0.03)	0.261 (0.09)	0.344 (0.33)
	Moraxellaceae	2.656 (0.18)	3.466 (0.66)	1.904 (0.47)	2.739 (0.55)	2.961 (0.79)	1.605 (0.52)	2.969 (0.60)	2.458 (0.58)	4.104 (0.90)	2.216 (1.01)	1.990 (0.86)	0.872 (0.13)	3.352 (1.10)	1.226 (0.63)
	Pasteurellaceae	1.532 (0.01)	1.619 (0.21)	1.468 (0.29)	1.391 (0.18)	1.660 (0.27)	2.011 (1.13)	1.465 (0.28)	1.622 (0.24)	1.854 (0.25)	1.025 (0.43)	1.330 (0.63)	0.758 (0.18)	1.994 (0.32)	2.680 (2.20)
	Pseudomonadaceae	0.741 (0.18)	0.981 (0.14)	0.535 (0.06)	0.907 (0.12)	0.518 (0.06)	0.631 (0.17)	0.839 (0.10)	0.693 (0.12)	1.194 (0.19)	0.416 (0.09)	0.768 (0.26)	0.514 (0.09)	0.571 (0.08)	0.496 (0.24)
	Xanthomonadales	0.265 (0.08)	0.259 (0.12)	0.281 (0.16)	0.370 (0.17)	0.131 (0.03)	0.130 (0.04)	0.406 (0.19)	0.143 (0.02)	0.309 (0.17)	0.192 (0.06)	0.082 (0.02)	0.454 (0.32)	0.099 (0.02)	0.177 (0.08)
	Other	0.099 (0.40)	0.117 (0.02)	0.081 (0.02)	0.098 (0.02)	0.107 (0.03)	0.077 (0.02)	0.106 (0.02)	0.093 (0.02)	0.103 (0.03)	0.159 (0.06)	0.119 (0.03)	0.092 (0.02)	0.079 (0.03)	0.035 (0.02)
Chloroflexi		0.050 (0.01)	0.064 (0.02)	0.037 (0.01)	0.051 (0.02)	0.044 (0.01)	0.064 (0.03)	0.059 (0.01)	0.042 (0.02)	0.063 (0.03)	0.049 (0.01)	0.098 (0.04)	0.035 (0.01)	0.041 (0.01)	0.030 (0.03)
Chloroplasts		1.577 (0.22)	1.431 (0.27)	1.724 (0.35)	1.672 (0.29)	1.795 (0.46)	0.496 (0.15)	1.935 (0.40)	1.250 (0.21)	1.616 (0.39)	1.220 (0.31)	0.711 (0.27)	1.748 (0.45)	2.097 (0.68)	0.284 (0.11)
Cyanobacteria		0.058 (0.01)	0.076 (0.03)	0.035 (0.01)	0.056 (0.02)	0.054 (0.02)	0.056 (0.04)	0.042 (0.01)	0.070 (0.03)	0.078 (0.04)	0.054 (0.02)	0.103 (0.08)	0.024 (0.01)	0.054 (0.02)	0.010 (0.01)
Firmicutes	Acidaminococcaceae	1.059 (0.14)	1.044 (0.12)	1.083 (0.25)	1.135 (0.18)	1.096 (0.29)	0.598 (0.16)	1.068 (0.21)	1.071 (0.18)	1.091 (0.15)	0.944 (0.32)	0.943 (0.22)	1.196 (0.37)	1.176 (0.42)	0.258 (0.11)
	Aerococcaceae	1.640 (0.12)	2.032 (0.20)	1.340 (0.13)	2.018 (0.19)	1.384 (0.11)	0.767 (0.15)	1.703 (0.17)	1.664 (0.19)	2.400 (0.28)	1.347 (0.17)	1.108 (0.14)	1.496 (0.20)	1.404 (0.15)	0.431 (0.19)
	Brochothrix	0.612 (0.41)	1.121 (0.82)	0.018 (0.01)	0.952 (0.71)	0.025 (0.01)	0.041 (0.02)	0.647 (0.64)	0.505 (0.54)	1.642 (1.23)	0.035 (0.03)	0.036 (0.02)	0.009 (0.00)	0.020 (0.01)	0.046 (0.03)
	Lactobacillaceae	4.121 (0.00)	6.192 (1.68)	1.808 (0.33)	4.265 (1.08)	4.255 (1.96)	1.794 (0.41)	4.914 (1.63)	2.683 (0.62)	5.824 (1.81)	9.251 (5.33)	2.578 (0.49)	2.134 (0.62)	1.629 (0.29)	1.023 (0.53)
	Paenibacillaceae	0.032 (0.16)	0.045 (0.01)	0.023 (0.01)	0.029 (0.01)	0.051 (0.02)	0.013 (0.01)	0.033 (0.01)	0.037 (0.01)	0.031 (0.01)	0.103 (0.05)	0.015 (0.01)	0.026 (0.01)	0.024 (0.01)	0.010 (0.01)
	Peptostreptococcaceae	1.236 (0.01)	1.657 (0.35)	0.793 (0.10)	1.176 (0.23)	1.501 (0.40)	0.692 (0.15)	1.463 (0.32)	0.986 (0.19)	1.477 (0.40)	2.572 (1.04)	1.000 (0.19)	0.765 (0.11)	0.939 (0.19)	0.390 (0.16)
	Planococcaceae	0.087 (0.18)	0.093 (0.02)	0.079 (0.01)	0.097 (0.02)	0.070 (0.02)	0.074 (0.03)	0.079 (0.01)	0.095 (0.02)	0.109 (0.03)	0.070 (0.03)	0.041 (0.02)	0.081 (0.02)	0.069 (0.02)	0.106 (0.06)
	Staphylococcaceae	8.282 (0.01)	6.910 (1.21)	9.861 (1.53)	9.185 (1.56)	8.159 (1.23)	4.934 (0.85)	7.490 (1.06)	8.657 (1.64)	7.728 (1.72)	5.376 (1.63)	4.882 (0.54)	11.178 (2.81)	9.622 (1.60)	4.985 (1.70)
	Streptococcaceae	17.171 (0.98)	16.538 (1.49)	17.518 (2.46)	20.250 (2.10)	13.018 (1.65)	11.320 (4.40)	17.214 (2.11)	16.827 (2.05)	19.953 (1.93)	8.784 (1.33)	10.651 (1.55)	20.656 (4.23)	15.243 (2.32)	11.976 (9.04)
	Other	1.528 (0.87)	2.075 (0.29)	1.031 (0.13)	1.744 (0.26)	1.359 (0.14)	1.063 (0.36)	1.574 (0.23)	1.546 (0.24)	2.312 (0.41)	1.835 (0.28)	1.098 (0.18)	0.968 (0.18)	1.109 (0.14)	1.028 (0.72)
Fusobacteria		0.725 (1.44)	0.743 (0.11)	0.712 (0.20)	0.695 (0.11)	0.764 (0.28)	0.797 (0.40)	0.715 (0.18)	0.756 (0.15)	0.792 (0.15)	0.586 (0.15)	0.748 (0.31)	0.562 (0.17)	0.858 (0.42)	0.846 (0.77)
Gemmatimonadetes		0.053 (0.10)	0.071 (0.02)	0.032 (0.01)	0.057 (0.02)	0.052 (0.01)	0.018 (0.01)	0.055 (0.02)	0.047 (0.01)	0.078 (0.03)	0.073 (0.03)	0.021 (0.02)	0.028 (0.01)	0.041 (0.01)	0.015 (0.02)
OP10		0.003 (0.01)	0.004 (0.00)	0.002 (0.00)	0.004 (0.00)	0.002 (0.00)	0.000 (0.00)	0.005 (0.00)	0.001 (0.00)	0.006 (0.01)	0.000 (0.00)	0.000 (0.00)	0.001 (0.00)	0.003 (0.00)	0.000 (0.00)
Planctomycetes		0.005 (0.01)	0.005 (0.00)	0.006 (0.00)	0.007 (0.00)	0.002 (0.00)	0.005 (0.00)	0.005 (0.00)	0.005 (0.00)	0.005 (0.00)	0.003 (0.00)	0.005 (0.01)	0.010 (0.00)	0.001 (0.00)	0.005 (0.00)
Thermi		0.295 (0.00)	0.203 (0.06)	0.363 (0.11)	0.157 (0.05)	0.465 (0.16)	0.442 (0.26)	0.271 (0.09)	0.305 (0.10)	0.111 (0.03)	0.162 (0.07)	0.835 (0.47)	0.220 (0.11)	0.624 (0.24)	0.056 (0.03)
TM7		0.179 (0.06)	0.244 (0.05)	0.128 (0.04)	0.201 (0.05)	0.183 (0.06)	0.110 (0.05)	0.203 (0.05)	0.170 (0.04)	0.286 (0.08)	0.130 (0.05)	0.211 (0.08)	0.086 (0.02)	0.211 (0.09)	0.010 (0.01)
Verrucomicrobia		0.008 (0.03)	0.013 (0.01)	0.003 (0.00)	0.006 (0.00)	0.014 (0.01)	0.000 (0.00)	0.008 (0.01)	0.008 (0.00)	0.007 (0.00)	0.038 (0.02)	0.000 (0.00)	0.006 (0.00)	0.001 (0.00)	0.000 (0.00)
Other		0.055 (0.00)	0.057 (0.01)	0.053 (0.01)	0.063 (0.01)	0.055 (0.02)	0.015 (0.01)	0.054 (0.01)	0.058 (0.01)	0.065 (0.02)	0.054 (0.03)	0.021 (0.01)	0.062 (0.02)	0.055 (0.03)	0.010 (0.01)

All abundances are reported as percentages of the sequences within each category that match the taxonomic group with one standard error of the mean indicated in parentheses. For this table, we used the Hugenholtz classification scheme against the Greengenes database (10), and the sequences were classified to the level of taxonomic resolution deemed to be most appropriate.