

Supplementary File 1 – STROBE checklist *

	Item No	Recommendation	Action Taken
Title and abstract	1	(a) Indicate the study's design with a commonly used term in the title or the abstract	Health Needs Assessment used in title to connote a cross-sectional assessment.
		(b) Provide in the abstract an informative and balanced summary of what was done and what was found	Abstract in main text.
Introduction			
Background/ rationale	2	Explain the scientific background and rationale for the investigation being reported	Lack of guidance on priorities for rural health needs in Asia and Sub-Saharan Africa (described in more detail in main text)
Objectives	3	State specific objectives, including any prespecified hypotheses	1) What needs do rural residents in Asia and Sub-Saharan Africa have?, and 2) Do needs for rural residents in Asia and Sub-Saharan Africa differ within and across national boundaries?
Methods			
Study design	4	Present key elements of study design early in the paper	Methods section summarises the approach of the study. Methods also cover data collection, data protection, sampling methodology, variables studied and the analytic strategy.
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	The countries are shown in the result section, and a map in Figure 2 shows the locations of respondents. Data extracted from July 2022 to October 2023.
Participants	6	(a) Give the eligibility criteria, and the sources and methods of selection of participants	Method of sampling described clearly in the methods section.
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	Variables described clearly in the methods section.
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	Unified data platform described clearly in the methods section.
Bias	9	Describe any efforts to address potential sources of bias	Standardisation of data collection via the unified data platform and by community health workers who received standardised training is described in the methods section.
Study size	10	Explain how the study size was arrived at	Maximal number of responses obtained within the period of July 2022 to October 2023.

* von Elm E, Altman DG, Egger M, Pocock SJ, Gøtzsche PC, Vandenbroucke JP; STROBE Initiative. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. *J Clin Epidemiol.* 2008 Apr;61(4):344-9. PMID: 18313558

Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	Handling of age and body-mass index (BMI) variables are described under the methods section.
Statistical methods	12	(a) Describe all statistical methods, including those used to control for confounding	Description of the regression model used for analysis is described under the methods section.
		(b) Describe any methods used to examine subgroups and interactions	As above.
		(c) Explain how missing data were addressed	An analysis of the implications of missing data is provided in supplementary file 5.
		(d) If applicable, describe analytical methods taking account of sampling strategy	N.A
		(e) Describe any sensitivity analyses	N.A
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	Reported in first paragraph of results section. Study did not have multiple stages.
		(b) Give reasons for non-participation at each stage	Discussion on the implications of missing data is provided in supplementary file 5.
		(c) Consider use of a flow diagram	N.A
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	Reported in first paragraph of results section.
		(b) Indicate number of participants with missing data for each variable of interest	Information is provided in supplementary file 5.
Outcome data	15*	Report numbers of outcome events or summary measures	Reported in supplementary file 3.
Main results	16	(a) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	Reported in supplementary file 3. Proportions are provided along with adjusted risk ratios and accompanying 95% confidence intervals and an indication of the p-value.
		(b) Report category boundaries when continuous variables were categorized	Reported in supplementary file 3.
		(c) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	N.A
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	Reported in figures 4-6 and supplementary files 3 and 4.
Discussion			
Key results	18	Summarise key results with reference to study objectives	Discussed in first segment of the discussion section.
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	Limitations subsection included in discussion section.

Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	Potential critiques to the approach are provided in the discussion, and the emphasis that this study provides a preliminary guidance only which must be substantiated by further locally-contextualised health needs assessments.
Generalisability	21	Discuss the generalisability (external validity) of the study results	Potential critiques to developing a universal rural resident profile are discussed.
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	Provided in the disclosure of interest section at the end of the manuscript.

Supplementary File 2 – Data collection interface (example of the Philippines and Indonesia)

Figure S1: Data collection for Participant Demographics

Sign-Up [PHL]

First Name *
Please type your first name

Middle Name
Please type your middle name

Last name *
Please type your last name

Gender *
 Female
 Male
 Others

Date of Birth *
Date of Birth

Contact Number *
+63 Please type your contact number

Country *
Country
Philippines

Region *

Submit

Sign-Up [PHL]

Region *
Select level 2

Province *
Select level 3

Municipality(Hub) *
Select level 4

Barangay *
Select level 5

Landmark
Please select your landmark

What is your average household income per month? Including all sources of income such as regular or occasional/part time employment, personal business, remittances from relatives abroad, pensions and other financial support *

3800 and below
 3900–6500
 6600–11200
 more than 11300
 Refused to Answer

Height (cm) *

Submit

Sign-Up [PHL]

Height (cm) *
Enter Height

Weight (kg) *
body weight

Do you have any existing medical conditions? *

Alzheimers or other dementia
 Arthritis
 Asthma
 Cancer
 Chronic Obstructive Pulmonary Disorder (COPD)
 Cirrhosis of the Liver
 Coronary artery disease
 Diabetes
 Diarrhoeal diseases
 Heart Attack
 Hepatitis A
 Hepatitis B
 Hepatitis C
 HIV or AIDS
 Hypertension
 Ischaemic Heart Disease

Submit

Figure S2: Data collection for Outcome Variable

Sign-Up [IDN]

Which of the following products and services would you be interested in? *

Choose products and services

Submit

Attend local health events

Doctor visits to Community
 Peer-to-peer events (connecting to other patients with same conditions as me)
 Access to Doctors via phone/video calls
 Access to Personal health services in my home (ie. Blood pressure/blood glucose check)
 Access to diagnostics/screening services
 Affordable medicines
 Vaccines
 Nutrition and wellness products
 Non-Prescription Medication
 Consumer health products (ie. Hygiene)
 None of the above
 I don't want to say

CANCEL SAVE

Supplementary File 3 – Number and Proportion of Residents Indicating Specific Service Gaps, by country

Table 2: Table of number & proportion of residents expressing interest in service by explanatory variables

Service Need		INFO	INFO Risk Ratio (95% CI)	INFOFB	INFOFB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PHSH ³	PHSH ³ Risk Ratio (95% CI)	
Demographic variables																												
Gender ³	Female	20 437 (8.2%)	Base	51 690 (20.6%)	Base	26 960 (10.8%)	Base	52 708 (21.0%)	Base	62 128 (24.8%)	Base	19 957 (8.0%)	Base	55 438 (22.1%)	Base	14 138 (5.6%)	Base	13 443 (5.4%)	Base	11 794 (4.7%)	Base	40 819 (16.3%)	Base	6 701 (46.1%)	Base	3 371 (23.2%)	Base	
	Male	19 442 (8.3%)	1.11 ^ (1.04–1.19)	50 422 (21.6%)	1.07 ^ (1.01–1.14)	24 380 (11.8%)	0.92 ^ (0.86–0.97)	42 231 (18.1%)	0.84 ^ (0.74–0.96)	56 196 (24.1%)	0.95 (0.86–1.04)	16 890 (7.2%)	0.92 ^ (0.86–0.97)	46 374 (19.9%)	0.93 (0.84–1.01)	11 473 (4.9%)	0.92 ^ (0.87–0.98)	12 312 (5.3%)	1.03 (0.95–1.13)	10 280 (4.4%)	0.93 (0.84–1.03)	38 414 (16.5%)	0.99 (0.93–1.06)	4 357 (43.8%)	1.01 (0.95–1.07)	2 093 (21.0%)	0.91 (0.80–1.05)	
Age group	0-20	3 783 (7.3%)	Base	10 900 (21.0%)	Base	4 665 (9.0%)	Base	8 159 (15.7%)	Base	11 258 (21.7%)	Base	3 044 (5.9%)	Base	12 691 (24.5%)	Base	4 032 (7.8%)	Base	2 719 (5.2%)	Base	1 673 (3.2%)	Base	7 838 (15.1%)	Base	177 (18.1%)	Base	186 (19.0%)	Base	
	20-30	10 555 (8.9%)	0.89 (0.76–1.04)	30 870 (25.9%)	0.93 ^ (0.88–0.99)	14 099 (11.8%)	0.99 (0.76–1.30)	21 269 (17.9%)	1.06 (0.87–1.31)	27 559 (23.1%)	0.98 (0.87–1.11)	8 523 (7.2%)	1.04 (0.93–1.16)	24 882 (20.9%)	0.91 (0.79–1.05)	5 740 (4.8%)	0.86 ^ (0.76–0.96)	5 889 (4.9%)	0.92 (0.79–1.09)	5 418 (4.6%)	1.11 (1.05–1.45)	19 026 (16.0%)	0.84 ^ (0.75–0.95)	547 (33.0%)	0.86 (0.62–1.19)	281 (17.0%)	0.66 ^ (0.47–0.92)	
	30-40	9 607 (7.4%)	0.77 ^ (0.61–0.98)	28 457 (21.9%)	0.77 ^ (0.72–0.84)	14 447 (11.1%)	0.87 (0.61–1.26)	28 143 (21.6%)	1.26 (0.73–2.18)	32 311 (24.7%)	1.00 (0.84–1.18)	9 312 (7.2%)	1.02 (0.93–1.19)	25 850 (19.9%)	0.91 (0.65–1.28)	5 528 (4.2%)	0.80 ^ (0.69–0.93)	6 084 (4.7%)	0.92 (0.72–1.16)	6 069 (4.7%)	1.13 (0.85–1.49)	20 943 (16.1%)	0.83 ^ (0.87–0.87)	1 170 (33.8%)	0.87 (0.51–1.48)	489 (14.1%)	0.60 ^ (0.52–0.70)	
	40-50	7 066 (7.7%)	0.82 (0.60–1.11)	18 331 (20.0%)	0.72 ^ (0.61–0.85)	9 193 (10.0%)	0.77 (0.54–1.08)	18 557 (20.3%)	1.15 (0.78–1.70)	21 841 (23.8%)	0.94 (0.84–1.06)	6 843 (7.5%)	1.10 (0.95–1.28)	18 563 (20.3%)	0.94 (0.79–1.12)	4 424 (4.8%)	0.92 ^ (0.82–0.99)	4 871 (5.3%)	1.07 (0.94–1.21)	4 279 (4.7%)	1.08 (0.84–1.39)	15 442 (16.9%)	0.88 ^ (0.80–0.98)	2 028 (39.8%)	1.04 (0.70–1.54)	930 (18.3%)	0.78 ^ (0.71–0.85)	
	≥50	8 877 (9.7%)	0.91 (0.56–1.44)	13 633 (14.9%)	0.56 ^ (0.41–0.77)	8 981 (9.8%)	0.80 (0.59–1.10)	18 889 (20.7%)	1.23 (0.84–1.80)	25 542 (28.0%)	1.10 (0.92–1.31)	9 159 (10.0%)	1.36 ^ (1.09–1.70)	19 897 (21.8%)	0.95 (0.83–1.08)	5 899 (6.5%)	1.06 (0.82–1.38)	6 209 (6.8%)	1.23 (0.93–1.62)	4 653 (5.1%)	0.99 (0.84–1.17)	16 049 (17.6%)	0.96 (0.74–1.25)	7 145 (53.6%)	1.30 ^ (1.00–1.67)	3 579 (26.9%)	1.04 (0.83–1.32)	
Household income (USD)	≤76	20 106 (13.3%)	Base	33 205 (21.9%)	Base	14 819 (9.8%)	Base	31 151 (20.5%)	Base	40 913 (27.0%)	Base	14 540 (9.6%)	Base	36 147 (23.8%)	Base	11 637 (7.7%)	Base	10 259 (6.8%)	Base	8 723 (5.8%)	Base	26 214 (17.3%)	Base	5 169 (52.7%)	Base	2 988 (30.5%)	Base	
	77-128	7 653 (7.8%)	0.58 ^ (0.40–0.84)	22 316 (22.8%)	0.91 (0.73–1.14)	9 556 (9.8%)	1.04 (0.74–1.45)	18 027 (18.0%)	1.00 (0.60–1.67)	22 192 (20.3%)	0.86 ^ (0.74–0.99)	8 809 (9.0%)	0.96 (0.73–1.26)	20 250 (20.3%)	0.84 (0.71–1.00)	4 428 (4.5%)	0.67 ^ (0.51–0.89)	5 281 (5.4%)	0.90 ^ (0.83–0.98)	4 327 (4.4%)	0.77 (0.49–1.20)	18 473 (18.9%)	0.96 (0.63–1.46)	1 962 (47.3%)	0.90 (0.71–1.14)	868 (20.9%)	0.70 ^ (0.53–0.92)	
	129-220	4 836 (6.2%)	0.39 ^ (0.20–0.76)	14 359 (18.5%)	0.85 (0.60–1.19)	10 543 (13.6%)	1.33 (0.71–2.49)	14 915 (19.2%)	0.91 (0.54–1.55)	22 971 (29.6%)	0.99 (0.66–1.47)	6 923 (8.9%)	1.06 (0.68–1.65)	15 184 (19.6%)	0.85 (0.57–1.28)	2 655 (3.4%)	0.50 ^ (0.38–0.65)	3 714 (4.8%)	0.79 ^ (0.66–0.94)	3 650 (4.7%)	0.60 ^ (0.57–0.63)	14 679 (18.9%)	1.06 (0.68–1.67)	1 275 (37.4%)	0.74 (0.52–1.05)	466 (13.7%)	0.47 ^ (0.31–0.71)	
	>220	4 339 (5.1%)	0.38 ^ (0.15–0.92)	20 361 (24.1%)	1.08 (0.84–1.38)	11 952 (14.1%)	1.54 (0.90–2.62)	20 978 (24.8%)	1.16 (0.69–1.94)	20 413 (24.1%)	0.78 (0.47–1.29)	3 680 (4.4%)	0.46 ^ (0.33–0.65)	14 842 (17.6%)	0.72 (0.47–1.11)	2 996 (3.5%)	0.55 (0.24–1.23)	2 895 (3.4%)	0.60 (0.31–1.14)	3 636 (4.3%)	0.68 (0.39–1.19)	11 640 (13.8%)	0.87 (0.51–1.46)	1 372 (34.6%)	0.69 ^ (0.57–0.84)	577 (17.0%)	0.61 ^ (0.52–0.71)	
BMI ⁴	Underweight (<18.5)	3 296 (14.1%)	Base	6 388 (27.4%)	Base	2 479 (10.6%)	Base	4 251 (18.2%)	Base	6 427 (27.5%)	Base	1 783 (7.6%)	Base	5 824 (25.0%)	Base	1 748 (7.5%)	Base	1 533 (6.7%)	Base	1 237 (5.3%)	Base	5 715 (15.9%)	Base	695 (50.8%)	Base	403 (29.5%)	Base	
	Normal (18.5 – 24.9)	22 226 (8.8%)	0.71 * (0.61–0.81)	53 594 (21.1%)	0.76 (0.56–1.03)	24 168 (9.5%)	0.88 (0.50–1.55)	44 530 (17.5%)	0.92 (0.67–1.26)	55 614 (21.9%)	0.81 (0.62–1.06)	18 491 (7.3%)	0.97 (0.55–1.71)	52 252 (20.6%)	0.81 (0.64–1.02)	13 359 (5.3%)	0.79 ^ (0.62–0.99)	14 469 (5.7%)	0.84 (0.70–1.01)	11 375 (4.5%)	0.85 (0.47–1.55)	41 484 (16.3%)	0.97 (0.74–1.29)	5 654 (49.1%)	1.02 (0.96–1.09)	2 690 (23.4%)	0.85 (0.72–1.01)	
	Pre-obesity / Obesity (≥25)	11 022 (7.0%)	0.62 (0.36–1.08)	32 711 (20.9%)	0.74 (0.50–1.09)	19 267 (12.3%)	1.11 (1.06–1.16)	36 183 (23.1%)	1.20 (0.75–1.93)	43 831 (28.0%)	1.03 (0.54–1.95)	13 464 (8.6%)	1.27 (0.60–2.71)	32 765 (20.9%)	0.86 (0.68–1.10)	6 816 (4.4%)	0.69 (0.39–1.24)	7 230 (4.6%)	0.69 (0.45–1.04)	7 289 (4.7%)	0.87 (0.40–1.90)	27 515 (17.6%)	1.14 (0.69–1.88)	4 161 (41.9%)	0.92 (0.82–1.03)	2 086 (21.0%)	0.81 (0.56–1.17)	
Chronic disease ⁵	No	29 023 (8.1%)	Base	74 791 (20.9%)	Base	37 606 (10.5%)	Base	73 891 (20.6%)	Base	81 306 (22.7%)	Base	28 515 (8.0%)	Base	76 002 (21.2%)	Base	21 284 (5.9%)	Base	19 601 (5.5%)	Base	14 920 (4.2%)	Base	55 655 (15.5%)	Base					
	Yes	3 301 (13.5%)	1.64 ^ (1.10–2.43)	3 813 (15.6%)	0.94 (0.77–1.16)	2 884 (11.8%)	1.22 (0.72–2.05)	4 750 (19.4%)	0.87 (0.44–1.75)	9 986 (40.8%)	1.61 ^ (1.04–2.48)	2 999 (12.2%)	1.33 (0.67–2.64)	7 373 (30.1%)	1.45 ^ (1.02–2.05)	1 944 (7.9%)	1.33 (0.80–2.21)	1 766 (7.2%)	1.26 (0.84–1.88)	2 478 (10.1%)	2.48 (0.97–6.33)	4 295 (17.5%)	1.06 (0.60–1.86)					

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PHSH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and variance adjusted for potential correlation within countries was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

⁸ Pearson chi-square dispersion tests were done to check for overdispersion of data, for which overdispersion was concerning in the models predicting outcomes of PSG and PHSH.

Table 2a: Table of number & proportion of residents expressing interest in service by explanatory variables in India

Service Need		INFO	INFO Risk Ratio (95% CI)	INFO-FB	INFO-FB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PHSH ³	PHSH ³ Risk Ratio (95% CI)
Demographic variables	Female	2 538 (8.1%)	Base	5 734 (18.4%)	Base	4 061 (13.0%)	Base	6 306 (19.6%)	Base	11 733 (36.3%)	Base	2 261 (7.2%)	Base	5 003 (16.0%)	Base	732 (2.3%)	Base	950 (3.0%)	Base	2 110 (6.8%)	Base	8 795 (28.2%)	Base	209 (0.7%)	Base	17 (0.1%)	Base
	Male	2 863 (7.3%)	0.94 (0.87–1.02)	7 014 (18.0%)	1.04 (0.98–1.10)	5 134 (13.2%)	0.90 [^] (0.85–0.96)	7 657 (19.6%)	0.92 [*] (0.88–0.96)	14 675 (37.6%)	0.98 (0.95–1.01)	2 733 (7.0%)	0.90 [^] (0.85–0.96)	6 684 (17.1%)	1.00 (0.96–1.05)	1 091 (2.8%)	1.10 (1.09–1.22)	1 260 (3.2%)	0.97 (0.87–1.08)	2 511 (6.4%)	0.93 (0.85–1.01)	10 671 (27.4%)	0.99 (0.96–1.02)	359 (0.9%)	0.83 [^] (0.72–0.95)	92 (0.2%)	0.73 (0.54–1.00)
Age group	0-20	241 (10.1%)	Base	422 (17.8%)	Base	320 (13.5%)	Base	386 (16.3%)	Base	878 (37.0%)	Base	94 (4.0%)	Base	503 (21.2%)	Base	51 (2.2%)	Base	36 (1.5%)	Base	132 (5.6%)	Base	770 (32.4%)	Base	5 (0.2%)	Base	8 (25.8%)	Base
	20-30	1 309 (9.0%)	0.93 (0.75–1.15)	2 942 (20.3%)	1.18 [^] (1.00–1.39)	2 349 (16.2%)	0.95 (0.81–1.12)	2 289 (15.8%)	0.88 (0.77–1.01)	5 482 (37.9%)	0.95 (0.87–1.04)	1 165 (8.1%)	1.65 [^] (1.19–2.28)	2 397 (16.6%)	0.76 [*] (0.67–0.86)	324 (2.2%)	0.97 (0.67–1.39)	402 (2.8%)	2.56 [^] (1.44–4.56)	1 089 (7.5%)	2.40 [*] (1.69–3.40)	4 232 (29.2%)	0.86 [^] (0.78–0.96)	79 (0.2%)	1.73 (0.27–11.2)	28 (13.9%)	Not comput ed
	30-40	1 863 (7.8%)	0.71 [*] (0.57–0.87)	4 620 (19.4%)	0.98 (0.83–1.15)	3 023 (12.7%)	0.80 [^] (0.68–0.94)	4 780 (12.7%)	0.97 (0.85–1.11)	9 224 (38.8%)	0.97 (0.89–1.07)	1 506 (6.3%)	1.63 [^] (1.18–2.25)	3 584 (15.1%)	0.78 [*] (0.68–0.88)	523 (2.2%)	1.01 (0.71–1.45)	693 (2.9%)	3.20 [*] (1.81–5.66)	1 615 (6.8%)	2.50 [*] (1.76–3.54)	6 233 (26.2%)	0.85 [^] (0.77–0.95)	186 (0.5%)	1.78 (0.27–11.5)	54 (11.8%)	Not comput ed
	40-50	1 250 (7.2%)	0.61 [*] (0.49–0.76)	3 196 (18.4%)	0.82 [^] (0.69–0.97)	2 153 (12.4%)	0.79 [^] (0.68–0.94)	3 644 (21.0%)	1.01 (0.88–1.16)	6 360 (36.7%)	1.01 (0.92–1.11)	1 127 (6.5%)	1.68 [^] (1.21–2.33)	2 808 (16.2%)	0.86 [^] (0.75–0.97)	444 (2.6%)	1.19 (0.83–1.71)	548 (3.2%)	3.06 [*] (1.72–5.43)	1 074 (6.2%)	2.23 [*] (1.57–3.18)	4 681 (27.0%)	0.88 [^] (0.80–0.98)	133 (0.3%)	1.63 (0.25–10.6)	34 (9.6%)	Not comput ed
	≥50	738 (6.0%)	0.40 [*] (0.31–0.50)	1 574 (12.8%)	0.64 [*] (0.53–0.76)	1 357 (11.0%)	0.71 [*] (0.60–0.84)	2 875 (23.3%)	1.22 [*] (1.06–1.39)	4 480 (36.4%)	1.08 (0.96–1.15)	1 109 (9.0%)	2.14 [*] (1.55–2.96)	2 403 (19.5%)	1.04 (0.92–1.18)	483 (3.9%)	1.84 [*] (1.29–2.64)	532 (4.3%)	4.16 [*] (2.34–7.37)	713 (5.8%)	1.73 [^] (1.21–2.47)	3 569 (29.0%)	0.99 (0.89–1.10)	168 (0.4%)	1.69 (0.26–10.9)	39 (8.8%)	Not comput ed
Household income (USD)	≤76	1 071 (14.3%)	Base	1 531 (20.8%)	Base	641 (8.7%)	Base	1 088 (14.8%)	Base	2 472 (33.6%)	Base	394 (5.4%)	Base	351 (4.8%)	Base	113 (1.5%)	Base	151 (2.1%)	Base	677 (9.2%)	Base	1 240 (16.8%)	Base	184 (46.9%)	Base	17 (4.3%)	Base
	77-128	1 596 (6.3%)	0.39 [*] (0.35–0.44)	5 870 (23.2%)	0.64 [*] (0.59–0.69)	2 215 (8.8%)	1.02 (0.91–1.13)	2 910 (11.5%)	1.00 (0.93–1.08)	6 533 (25.8%)	0.82 [*] (0.78–0.86)	1 960 (7.7%)	1.85 [*] (1.61–2.13)	5 597 (22.1%)	4.99 [*] (4.35–5.72)	130 (0.5%)	0.46 [*] (0.34–0.62)	797 (3.2%)	2.08 [*] (1.68–2.57)	1 318 (5.2%)	0.61 [*] (0.55–0.68)	7 945 (31.4%)	2.49 [*] (2.30–2.71)	98 (33.3%)	0.70 [*] (0.57–0.85)	15 (5.1%)	1.16 (0.55–2.44)
	129-220	1 655 (7.9%)	0.46 [*] (0.41–0.51)	2 611 (12.5%)	0.55 [*] (0.51–0.60)	4 520 (21.5%)	1.96 [*] (1.78–2.17)	5 683 (27.1%)	1.77 [*] (1.65–1.90)	10 039 (47.9%)	1.18 [*] (1.13–1.23)	2 005 (9.6%)	3.13 [*] (2.74–3.58)	3 502 (16.7%)	5.18 [*] (4.52–5.94)	545 (2.6%)	2.60 [*] (2.05–3.29)	883 (4.2%)	2.94 [*] (2.39–3.63)	1 804 (8.6%)	0.61 [*] (0.54–0.68)	6 622 (31.6%)	2.92 [*] (2.69–3.17)	156 (38.4%)	0.82 (0.70–0.97)	61 (15.0%)	3.82 [*] (2.14–6.83)
	>220	880 (7.0%)	0.40 [*] (0.35–0.45)	1 817 (14.4%)	0.81 [*] (0.75–0.88)	1 594 (12.6%)	1.47 [*] (1.32–1.64)	3 863 (30.6%)	1.18 [*] (1.09–1.29)	5 932 (47.1%)	0.92 [^] (0.88–0.97)	588 (4.7%)	1.45 [*] (1.24–1.70)	2 206 (16.1%)	6.29 [*] (5.47–7.22)	872 (6.9%)	8.10 [*] (6.49–10.12)	349 (2.8%)	2.42 [*] (1.94–3.03)	713 (5.7%)	0.53 [*] (0.46–0.60)	3 233 (25.7%)	3.56 [*] (3.28–3.86)	118 (33.6%)	0.68 [*] (0.56–0.82)	58 (16.5%)	3.93 [*] (2.18–7.09)
BMI ⁴	Underweigh t (<18.5)	262 (13.3%)	Base	419 (21.3%)	Base	193 (9.8%)	Base	225 (11.4%)	Base	537 (27.3%)	Base	78 (4.0%)	Base	481 (24.4%)	Base	60 (3.0%)	Base	69 (3.5%)	Base	100 (5.1%)	Base	471 (23.9%)	Base	10 (45.5%)	Base	7 (31.8%)	Base
	Normal (18.5 – 24.9)	2 260 (7.8%)	0.59 [*] (0.48–0.73)	4 480 (15.4%)	0.72 [*] (0.62–0.83)	4 479 (15.4%)	1.95 [*] (1.53–2.48)	5 281 (18.1%)	1.57 [*] (1.31–1.87)	11 135 (38.2%)	1.58 [*] (1.40–1.79)	1 458 (5.0%)	1.11 (0.80–1.52)	5 614 (19.3%)	0.73 [*] (0.65–0.82)	1 164 (4.0%)	1.27 (0.91–1.76)	973 (3.3%)	0.93 (0.87–1.29)	2 474 (8.5%)	1.97 [*] (1.44–2.71)	8 754 (30.1%)	0.95 (0.85–1.06)	181 (39.9%)	0.90 (0.54–1.50)	69 (15.2%)	0.62 (0.33–1.18)
	Pre-obesity / Obesity (≥25)	2 558 (7.3%)	0.87 (0.71–1.08)	7 341 (20.9%)	0.81 [*] (0.70–0.94)	4 051 (11.6%)	1.58 [*] (1.24–2.02)	6 676 (19.0%)	1.68 [*] (1.41–2.00)	13 151 (37.5%)	1.45 [*] (1.28–1.64)	3 281 (9.4%)	3.29 [*] (2.40–4.50)	5 416 (15.4%)	0.77 [*] (0.69–0.87)	574 (1.6%)	0.50 [*] (0.35–0.70)	1 153 (3.3%)	1.05 (0.76–1.46)	1 674 (4.8%)	1.09 (0.79–1.50)	9 835 (28.0%)	1.19 [*] (1.07–1.33)	373 (39.4%)	0.88 (0.53–1.46)	78 (8.3%)	0.38 [*] (0.20–0.71)
Chronic disease ⁵	No	2 449 (8.0%)	Base	4 881 (15.9%)	Base	4 205 (13.7%)	Base	6 853 (22.3%)	Base	11 036 (35.9%)	Base	3 178 (10.3%)	Base	6 095 (19.8%)	Base	1 414 (4.6%)	Base	1 345 (4.4%)	Base	2 329 (7.6%)	Base	9 546 (31.0%)	Base				
	Yes	48 (3.2%)	0.42 [*] (0.31–0.56)	83 (5.6%)	0.37 [*] (0.30–0.46)	89 (6.0%)	0.47 [*] (0.38–0.59)	142 (9.5%)	0.36 [*] (0.30–0.43)	582 (39.1%)	1.09 [^] (1.01–1.16)	130 (8.7%)	0.76 [^] (0.64–0.91)	259 (17.4%)	0.91 (0.81–1.02)	84 (5.7%)	1.13 (0.91–1.39)	90 (6.1%)	1.29 [^] (1.04–1.60)	115 (7.7%)	1.06 (0.87–1.30)	395 (26.6%)	0.85 [*] (0.78–0.93)				

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PHSH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and robust error variance was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

Table 2b: Table of number & proportion of residents expressing interest in service by explanatory variables in Philippines

Service Need		INFO	INFO Risk Ratio (95% CI)	INFO-FB	INFO-FB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PHSH ³	PHSH ³ Risk Ratio (95% CI)
Demographic variables	Female	10 963 (35.3%)	Base	7 961 (25.7%)	Base	5 614 (18.1%)	Base	9 996 (32.2%)	Base	19 906 (64.2%)	Base	6 611 (21.3%)	Base	12 787 (41.2%)	Base	5 224 (16.8%)	Base	4 245 (13.7%)	Base	3 647 (11.8%)	Base	10 338 (33.3%)	Base	3 773 (12.0%)	Base	2 294 (7.0%)	Base
	Male	10 097 (35.4%)	0.99 (0.97–1.01)	6 901 (24.2%)	0.91* (0.88–0.94)	4 855 (17.0%)	0.89* (0.85–0.93)	8 806 (29.0%)	0.94* (0.92–0.97)	18 176 (63.8%)	0.98^ (0.96–0.99)	5 543 (19.5%)	0.88* (0.85–0.92)	10 932 (38.4%)	0.92* (0.90–0.94)	4 255 (14.9%)	0.90* (0.87–0.94)	3 569 (12.5%)	0.92^ (0.88–0.97)	3 142 (11.0%)	0.92^ (0.87–0.97)	9 116 (32.0%)	0.95* (0.92–0.98)	2 487 (9.0%)	0.98 (0.96–1.02)	1 411 (39.3%)	0.93^ (0.88–0.98)
Age group	0-20	1 363 (39.8%)	Base	1 075 (31.4%)	Base	667 (19.5%)	Base	1 202 (35.1%)	Base	2 133 (62.3%)	Base	647 (18.9%)	Base	1 416 (41.3%)	Base	593 (17.3%)	Base	413 (12.1%)	Base	424 (12.4%)	Base	1 136 (33.2%)	Base	61 (59.2%)	Base	40 (38.8%)	Base
	20-30	5 234 (36.3%)	0.92^ (0.87–0.97)	4 093 (28.4%)	0.93^ (0.87–1.00)	2 730 (18.9%)	1.02 (0.92–1.13)	4 611 (32.0%)	0.88* (0.83–0.93)	9 010 (62.5%)	0.96 (1.00)	2 942 (20.4%)	1.01 (0.91–1.12)	6 013 (41.7%)	0.95^ (0.90–1.00)	2 418 (16.8%)	0.91 (1.01)	1 932 (13.4%)	1.01 (1.15)	1 662 (11.5%)	0.99 (1.13)	4 941 (34.3%)	0.95 (1.01)	215 (1.08)	0.87 (1.08)	165 (1.27)	0.94 (1.10)
	30-40	4 175 (34.5%)	0.90* (0.85–0.95)	3 080 (25.4%)	0.84* (0.78–0.91)	2 146 (17.7%)	0.99 (1.10)	3 824 (31.6%)	0.87* (0.82–0.92)	7 544 (62.3%)	0.95^ (0.92–0.99)	2 486 (20.5%)	0.99 (1.10)	4 985 (41.2%)	0.93^ (0.88–0.98)	1 996 (16.5%)	0.85* (0.76–0.94)	1 631 (13.5%)	0.93 (1.07)	1 376 (11.4%)	0.99 (1.13)	4 125 (34.1%)	0.85– (0.97)	376 (64.5%)	0.91^ (0.74–1.13)	232 (39.8%)	0.82 (1.10)
	40-50	3 648 (35.3%)	0.92^ (0.87–0.97)	2 596 (25.1%)	0.83* (0.77–0.89)	1 861 (18.0%)	0.99 (1.10)	3 292 (31.8%)	0.87* (0.81–0.92)	6 570 (63.6%)	0.97 (1.01)	2 127 (20.6%)	1.01 (0.91–1.12)	4 142 (40.1%)	0.91^ (0.86–0.96)	1 667 (16.1%)	0.85* (0.76–0.94)	1 382 (13.4%)	0.98 (1.12)	1 194 (11.6%)	0.99 (1.14)	3 440 (33.3%)	0.89^ (0.83–0.95)	963 (70.8%)	1.02 (1.26)	581 (42.7%)	0.87 (1.16)
	≥50	6 642 (34.5%)	0.88* (0.84–0.93)	4 019 (20.9%)	0.67* (0.63–0.72)	3 068 (15.9%)	0.85* (0.76–0.94)	5 879 (30.5%)	0.81* (0.76–0.86)	12 848 (66.7%)	0.97 (1.05)	3 965 (20.6%)	1.00 (1.10)	7 177 (37.2%)	0.85* (0.80–0.89)	2 811 (14.6%)	0.76* (0.69–0.85)	2 461 (12.8%)	0.95 (1.09)	2 135 (11.1%)	0.89 (1.01)	5 825 (30.2%)	0.83* (0.78–0.89)	4 648 (70.7%)	1.04 (1.28)	2 688 (40.9%)	0.84 (1.11)
Household income (USD)	≤76	14 283 (44.6%)	Base	9 169 (28.6%)	Base	6 086 (19.0%)	Base	12 592 (39.3%)	Base	20 223 (63.2%)	Base	6 154 (19.2%)	Base	13 552 (42.3%)	Base	5 343 (16.7%)	Base	4 025 (12.6%)	Base	4 377 (13.7%)	Base	9 749 (30.5%)	Base	3 357 (66.0%)	Base	2 359 (46.4%)	Base
	77-128	3 433 (32.4%)	0.71* (0.68–0.73)	2 650 (25.0%)	0.85* (0.82–0.89)	1 783 (16.8%)	0.91^ (0.86–0.96)	2 940 (27.8%)	0.69* (0.66–0.71)	6 902 (65.2%)	1.03^ (1.05)	2 050 (19.4%)	1.02 (0.97–1.07)	4 404 (15.8%)	0.98 (1.01)	1 672 (15.8%)	0.98 (1.03)	1 514 (14.2%)	1.21* (1.14–1.29)	966 (9.1%)	0.67* (0.62–0.72)	3 049 (28.8%)	0.86* (0.83–0.90)	1 077 (73.4%)	1.13* (1.09–1.17)	612 (41.7%)	0.90* (0.84–0.97)
	129-220	1 260 (20.2%)	0.40* (0.38–0.42)	1 037 (16.6%)	0.53* (0.50–0.57)	708 (11.4%)	0.61* (0.56–0.66)	1 221 (19.6%)	0.48* (0.45–0.50)	4 866 (78.1%)	1.28* (1.26–1.31)	1 816 (29.1%)	1.69* (1.61–1.77)	2 015 (32.3%)	0.75* (0.72–0.78)	666 (10.7%)	0.63* (0.58–0.69)	735 (11.8%)	0.93 (1.02)	429 (6.9%)	0.51* (0.46–0.57)	2 991 (48.0%)	1.60* (1.55–1.66)	588 (76.9%)	1.17* (1.12–1.22)	262 (34.3%)	0.74* (0.67–0.82)
	>220	898 (32.6%)	0.70* (0.66–0.75)	778 (28.3%)	0.97 (1.04)	616 (1.14–1.34)	1.23* (1.14–1.34)	855 (31.1%)	0.78* (0.73–0.83)	2 061 (74.9%)	1.20* (1.17–1.23)	763 (27.7%)	1.48* (1.38–1.59)	1 227 (44.6%)	1.05^ (1.00–1.10)	547 (19.9%)	1.22* (1.12–1.33)	431 (15.7%)	1.31* (1.19–1.46)	357 (13.0%)	1.00 (1.12)	1 161 (42.2%)	1.35* (1.28–1.43)	374 (77.8%)	1.20* (1.14–1.27)	205 (42.6%)	0.93 (1.03)
BMI ⁴	Underweight (<18.5)	2 615 (39.8%)	Base	1 948 (29.7%)	Base	1 225 (18.7%)	Base	2 269 (34.6%)	Base	4 274 (65.1%)	Base	1 236 (18.8%)	Base	2 701 (41.2%)	Base	1 049 (16.0%)	Base	798 (12.2%)	Base	870 (13.3%)	Base	2 004 (30.5%)	Base	501 (68.6%)	Base	310 (42.5%)	Base
	Normal (18.5 – 24.9)	12 989 (55.2%)	0.96^ (0.92–0.99)	8 969 (24.3%)	0.86* (0.82–0.91)	6 348 (17.2%)	0.91^ (0.85–0.97)	11 547 (51.3%)	0.96^ (0.92–1.00)	23 439 (63.4%)	0.96* (0.94–0.98)	7 578 (20.5%)	0.94– (1.06)	14 785 (40.0%)	0.95^ (0.92–0.98)	6 009 (16.3%)	1.00 (1.07)	4 943 (13.4%)	1.00 (1.09)	4 076 (11.0%)	0.82* (0.76–0.89)	12 152 (32.9%)	1.00 (1.05)	3 556 (71.0%)	1.01 (0.95–1.07)	1 992 (39.8%)	0.95 (1.04)
	Pre-obesity / Obesity (≥25)	4 768 (33.3%)	0.94* (0.90–0.98)	3 403 (23.8%)	0.89* (0.88–0.97)	2 478 (17.3%)	0.94 (0.87–1.01)	4 363 (30.5%)	0.97 (0.92–1.01)	9 258 (64.7%)	0.96* (0.93–0.98)	3 954 (20.6%)	0.94 (0.88–1.01)	5 356 (37.4%)	0.90* (0.86–0.93)	2 064 (14.4%)	0.86* (0.79–0.93)	1 749 (12.2%)	0.88* (0.80–0.96)	1 559 (10.9%)	0.81* (0.74–0.88)	4 781 (33.4%)	1.02 (0.97–1.07)	2 068 (68.7%)	0.97 (0.91–1.03)	1 303 (43.3%)	1.03 (0.92–1.13)
Chronic disease ⁵	No	15 434 (37.0%)	Base	10 656 (25.5%)	Base	7 083 (17.2%)	Base	13 793 (33.0%)	Base	25 934 (62.1%)	Base	8 395 (20.1%)	Base	17 258 (41.3%)	Base	7 087 (17.0%)	Base	5 376 (12.9%)	Base	4 844 (11.6%)	Base	13 758 (32.9%)	Base				
	Yes	2 909 (32.4%)	0.90* (0.87–0.94)	1 868 (20.8%)	0.93^ (0.88–0.97)	1 542 (17.2%)	1.14* (1.08–1.21)	2 602 (29.0%)	0.90* (0.87–0.94)	6 059 (67.4%)	1.06* (1.04–1.08)	2 076 (23.1%)	1.23* (1.17–1.29)	3 442 (38.3%)	0.99 (0.95–1.02)	1 437 (16.0%)	1.08* (1.02–1.15)	1 190 (13.2%)	1.17* (1.09–1.25)	1 054 (11.7%)	1.11^ (1.03–1.19)	2 824 (31.4%)	1.03 (0.99–1.07)				

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PHSH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and robust error variance was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

Table 2c: Table of number & proportion of residents expressing interest in service by explanatory variables in Indonesia

Service Need		INFO	INFO Risk Ratio (95% CI)	INFOFB	INFOFB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PHSH ³	PHSH ³ Risk Ratio (95% CI)
Demographic variables	Female	2 260 (2.4%)	Base	20 703 (22.3%)	Base	4 628 (5.0%)	Base	11 582 (12.5%)	Base	3 729 (4.0%)	Base	1 035 (1.1%)	Base	14 975 (16.1%)	Base	2 031 (2.2%)	Base	4 230 (4.6%)	Base	745 (0.8%)	Base	7 729 (8.3%)	Base	1 467 (1.6%)	Base	319 (0.3%)	Base
	Male	2 670 (2.8%)	1.27* (1.18–1.37)	22 125 (23.4%)	1.06* (1.04–1.09)	5 239 (5.5%)	0.94^ (0.90–0.98)	8 946 (9.4%)	0.78* (0.75–0.81)	4 178 (4.4%)	1.14* (1.08–1.20)	1 112 (1.2%)	0.94 (0.85–1.03)	13 078 (13.8%)	0.80* (0.78–0.82)	1 744 (1.8%)	0.92^ (0.85–1.00)	4 404 (4.7%)	1.06^ (1.01–1.11)	663 (0.7%)	0.84^ (0.73–0.97)	8 246 (8.7%)	1.05^ (1.01–1.10)	902 (0.9%)	0.98 (0.91–1.05)	162 (0.2%)	0.83 (0.67–1.03)
Age group	0-20	416 (2.8%)	Base	4 310 (29.0%)	Base	903 (6.1%)	Base	1 060 (10.0%)	Base	523 (3.5%)	Base	147 (1.0%)	Base	1 949 (13.1%)	Base	267 (1.8%)	Base	523 (3.5%)	Base	91 (0.6%)	Base	1 316 (8.9%)	Base	26 (0.2%)	Base	4 (0.0%)	Base
	20-30	1 610 (3.3%)	1.03 (0.86–1.23)	14 402 (29.5%)	0.93^ (0.89–0.98)	2 950 (6.1%)	0.73* (0.65–0.81)	4 543 (4.3%)	1.37* (1.22–1.52)	2 107 (2.1%)	1.21^ (1.04–1.40)	543 (4.3%)	1.14 (0.87–1.48)	6 885 (14.1%)	1.03 (0.95–1.11)	956 (2.0%)	0.94 (0.77–1.14)	2 045 (4.2%)	1.00 (0.87–1.15)	416 (0.9%)	1.44 (0.98–2.11)	4 586 (9.4%)	0.90^ (0.82–0.99)	94 (0.3%)	1.59 (0.67–3.77)	17 (0.1%)	Not computed
	30-40	1 541 (3.2%)	0.97 (0.81–1.17)	11 721 (24.0%)	0.74* (0.71–0.78)	2 482 (5.1%)	0.53* (0.48–0.59)	5 150 (10.5%)	1.51* (1.35–1.68)	2 219 (2.1%)	1.16 (1.00–1.35)	577 (4.5%)	1.13 (0.87–1.48)	8 403 (17.2%)	1.34* (1.24–1.44)	1 004 (2.1%)	0.95 (0.78–0.99)	2 193 (4.5%)	1.12 (0.97–1.29)	351 (0.8%)	1.02 (0.69–1.50)	4 235 (8.7%)	0.80* (0.72–0.88)	258 (0.3%)	1.36 (0.83–4.58)	39 (0.0%)	Not computed
	40-50	879 (2.3%)	0.77^ (0.64–0.93)	7 678 (20.2%)	0.63* (0.60–0.66)	1 814 (4.8%)	0.50* (0.44–0.55)	4 623 (12.2%)	1.76* (1.57–1.96)	1 636 (4.3%)	1.06 (0.91–1.24)	449 (1.2%)	1.19 (0.91–1.56)	5 941 (15.6%)	1.21* (1.12–1.31)	799 (2.1%)	0.92 (0.76–1.13)	1 786 (4.7%)	1.15^ (1.00–1.29)	271 (0.7%)	0.91 (0.61–1.35)	3 401 (9.0%)	0.88^ (0.80–0.97)	549 (0.6%)	2.02 (0.86–4.71)	106 (0.2%)	Not computed
	≥50	484 (1.3%)	0.53* (0.44–0.65)	4 729 (12.7%)	0.43* (0.41–0.46)	1 720 (4.6%)	0.55* (0.49–0.61)	5 159 (13.9%)	1.98* (1.77–2.21)	1 428 (3.8%)	0.92 (0.79–1.07)	431 (1.2%)	1.04 (0.79–1.37)	4 883 (13.1%)	1.04 (0.96–1.12)	750 (2.0%)	0.81* (0.66–0.99)	2 093 (5.6%)	1.31* (1.14–1.51)	279 (0.8%)	0.95 (0.64–1.41)	2 442 (6.6%)	0.64* (0.58–0.71)	1 442 (4.7%)	1.97 (0.85–4.60)	315 (0.3%)	Not computed
Household income (USD)	≤76	1 167 (2.0%)	Base	12 019 (20.6%)	Base	1 788 (3.1%)	Base	5 944 (10.2%)	Base	2 394 (4.1%)	Base	727 (1.2%)	Base	7 923 (13.6%)	Base	1 121 (1.9%)	Base	2 808 (4.8%)	Base	482 (0.8%)	Base	5 757 (9.9%)	Base	827 (1.4%)	Base	175 (0.3%)	Base
	77-128	605 (1.8%)	0.75* (0.67–0.84)	6 466 (18.8%)	0.88* (0.86–0.91)	1 794 (5.2%)	1.74* (1.62–1.87)	3 693 (10.7%)	1.12* (1.04–1.17)	1 361 (4.0%)	0.96 (1.03)	450 (1.3%)	1.10 (0.96–1.25)	4 753 (13.8%)	1.02 (0.98–1.06)	837 (2.4%)	1.28* (1.17–1.41)	1 578 (4.8%)	0.88* (0.83–0.94)	222 (0.7%)	0.83 (0.69–1.00)	2 376 (6.9%)	0.71* (0.68–0.76)	530 (4.3%)	0.93 (0.86–1.01)	126 (1.0%)	1.09 (0.88–1.36)
	129-220	847 (2.6%)	0.97 (0.88–1.08)	7 417 (22.9%)	1.04^ (1.01–1.07)	2 724 (8.4%)	3.12* (2.92–3.3)	3 234 (10.0%)	1.07^ (1.02–1.12)	1 542 (4.8%)	1.04 (0.97–1.12)	489 (1.5%)	1.33^ (1.18–1.51)	6 148 (19.0%)	1.41* (1.37–1.46)	637 (2.0%)	1.01 (0.91–1.12)	1 314 (4.1%)	0.80* (0.75–0.86)	279 (0.9%)	1.10 (0.92–1.31)	2 295 (7.1%)	0.77* (0.73–0.82)	327 (3.0%)	0.64* (0.58–0.71)	39 (0.3%)	0.36* (0.26–0.51)
	>220	1 210 (4.2%)	2.00* (1.83–2.19)	8 409 (29.2%)	1.29* (1.25–1.32)	2 137 (7.4%)	2.77* (2.58–2.97)	3 145 (10.9%)	1.23* (1.17–1.28)	1 479 (5.1%)	1.18* (1.10–1.27)	303 (1.1%)	1.00 (0.86–1.15)	4 839 (16.8%)	1.16* (1.11–1.20)	561 (2.0%)	1.03 (0.92–1.15)	1 396 (4.8%)	1.04 (0.97–1.11)	167 (0.6%)	0.85 (0.69–1.04)	2 615 (9.1%)	1.20* (1.14–1.27)	189 (3.1%)	0.67* (0.59–0.76)	42 (0.7%)	0.75 (0.54–1.05)
BMI ⁴	Underweight (<18.5)	240 (2.4%)	Base	2 330 (23.0%)	Base	233 (2.3%)	Base	970 (9.6%)	Base	288 (2.8%)	Base	145 (1.4%)	Base	1 762 (17.4%)	Base	285 (2.8%)	Base	521 (5.1%)	Base	41 (0.4%)	Base	760 (7.5%)	Base	154 (39.8%)	Base	46 (11.9%)	Base
	Normal (18.5 – 24.9)	3 549 (2.7%)	1.14 (0.97–1.35)	29 972 (22.9%)	0.98 (0.93–1.02)	6 801 (5.2%)	2.89* (2.45–3.40)	14 237 (10.9%)	1.01 (0.94–1.08)	5 344 (4.1%)	1.47* (1.28–1.69)	1 432 (1.1%)	0.73^ (0.61–0.88)	18 582 (14.2%)	0.71* (0.67–0.74)	2 367 (1.8%)	0.71* (0.61–0.82)	5 820 (4.5%)	0.76* (0.69–0.83)	866 (0.7%)	1.24 (0.88–1.73)	11 209 (8.6%)	1.12^ (1.02–1.23)	1 447 (43.7%)	1.10 (0.95–1.27)	250 (7.6%)	0.72 (0.51–1.01)
	Pre-obesity / Obesity (≥25)	893 (2.3%)	1.04 (0.87–1.24)	8 422 (21.7%)	1.08^ (1.03–1.13)	3 095 (5.4%)	3.23* (2.72–3.83)	4 692 (12.1%)	1.06 (0.98–1.14)	1 906 (4.9%)	2.04* (1.76–2.35)	410 (1.1%)	0.67* (0.55–0.82)	6 724 (17.3%)	0.82* (0.78–0.87)	1 010 (2.6%)	1.16 (0.99–1.36)	2 082 (5.4%)	0.75* (0.67–0.83)	435 (1.1%)	2.14* (1.51–3.04)	3 427 (8.8%)	1.30* (1.18–1.44)	741 (40.9%)	1.03 (0.89–1.20)	177 (9.8%)	0.91 (0.63–1.32)
Chronic disease ⁵	No	3 734 (2.5%)	Base	33 668 (11.2%)	Base	8 501 (5.7%)	Base	16 580 (11.2%)	Base	6 427 (4.3%)	Base	1 879 (1.3%)	Base	21 264 (14.4%)	Base	3 284 (2.2%)	Base	6 938 (4.7%)	Base	976 (0.7%)	Base	10 707 (7.2%)	Base				
	Yes	59 (2.5%)	0.66^ (0.50–0.88)	646 (11.5%)	0.68* (0.63–0.74)	453 (8.1%)	1.74* (1.59–1.91)	1 002 (17.9%)	1.40* (1.31–1.50)	401 (7.2%)	1.88* (1.68–2.11)	120 (2.1%)	1.74* (1.41–2.13)	781 (14.0%)	0.90^ (0.83–0.97)	84 (1.5%)	0.63* (0.49–0.81)	267 (4.8%)	0.92 (0.80–1.06)	63 (1.1%)	1.32 (0.95–1.83)	404 (7.2%)	1.21* (1.09–1.34)				

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PHSH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and robust error variance was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

Table 2d: Table of number & proportion of residents expressing interest in service by explanatory variables in Cambodia

Service Need		INFO	INFO Risk Ratio (95% CI)	INFO-FB	INFO-FB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PESH ³	PESH ³ Risk Ratio (95% CI)	
Demographic variables	Female	32 (1.5%)	Base	13 (0.6%)	Base	14 (0.7%)	Base	66 (3.1%)	Base	123 (5.7%)	Base	274 (12.7%)	Base	20 (0.9%)	Base	17 (0.8%)	Base	41 (1.9%)	Base	23 (1.1%)	Base	190 (8.8%)	Base	86 (76.1%)	Base	46 (40.7%)	Base	
	Male	8 (0.5%)	0.72 (0.27–1.90)	5 (0.3%)	1.66 (0.48–5.76)	6 (0.4%)	Not computed	16 (1.1%)	0.72 (0.36–1.43)	33 (2.2%)	0.93 (0.64–1.37)	212 (14.1%)	1.27 [^] (1.10–1.47)	7 (0.5%)	Not computed	4 (0.3%)	0.55 (0.15–1.97)	9 (0.6%)	Not computed	10 (0.7%)	1.53 (0.62–3.79)	111 (7.4%)	0.81 (0.65–1.01)	16 (64.0%)	0.93 (0.70–1.24)	10 (40.0%)	1.16 (0.67–2.03)	
Age group	0-20	3 (1.5%)	Base	3 (1.5%)	Base	1 (0.5%)	Base	7 (3.6%)	Base	14 (7.2%)	Base	22 (11.3%)	Base	1 (0.5%)	Base	1 (0.5%)	Base	0 (0.0%)	Base	3 (1.5%)	Base	19 (9.7%)	Base	2 (16.7%)	Base	2 (16.7%)	Base	
	20-30	1 (0.2%)	Not computed	2 (0.3%)	Not computed	0 (0.0%)	Not computed	2 (0.3%)	0.32 (0.03–3.21)	2 (0.3%)	Not computed	90 (13.5%)	0.83 (0.57–1.21)	1 (0.2%)	Not computed	1 (0.2%)	Not computed	1 (0.2%)	Not computed	4 (0.6%)	0.36 (0.04–3.39)	54 (8.1%)	1.54 (0.66–3.62)	3 (75.0%)	Not computed	2 (50.0%)	Not computed	
	30-40	5 (0.6%)	Not computed	2 (0.3%)	Not computed	2 (0.3%)	Not computed	8 (1.0%)	0.48 (0.06–4.03)	8 (1.0%)	0.65 (0.09–4.70)	92 (11.7%)	0.65 [^] (0.44–0.95)	2 (0.3%)	Not computed	2 (0.3%)	Not computed	1 (0.1%)	Not computed	2 (0.3%)	0.13 (0.01–2.03)	61 (7.7%)	1.85 (0.79–4.33)	3 (100.0%)	Not computed	2 (66.7%)	Not computed	
	40-50	5 (0.8%)	Not computed	1 (0.2%)	Not computed	3 (0.5%)	Not computed	10 (1.6%)	0.69 (0.09–5.60)	26 (4.1%)	2.08 (0.32–13.55)	101 (15.9%)	0.89 (0.61–1.28)	4 (0.6%)	Not computed	4 (0.6%)	Not computed	12 (1.9%)	Not computed	5 (0.8%)	0.53 (0.06–4.76)	45 (7.1%)	1.56 (0.66–3.68)	9 (60.0%)	Not computed	4 (26.7%)	Not computed	
	≥50	26 (1.9%)	Not computed	10 (0.7%)	Not computed	14 (1.0%)	Not computed	55 (4.0%)	1.29 (0.17–9.58)	107 (7.8%)	2.00 (0.31–13.00)	182 (13.2%)	0.70 (0.49–1.00)	19 (1.4%)	Not computed	13 (1.0%)	Not computed	36 (3.6%)	Not computed	20 (1.5%)	0.65 (0.08–5.51)	123 (9.0%)	2.14 (0.93–4.92)	86 (81.9%)	Not computed	46 (43.8%)	Not computed	
Household income (\$USD)	≤76	36 (1.5%)	Base	13 (0.8%)	Base	19 (0.8%)	Base	75 (3.1%)	Base	149 (6.1%)	Base	482 (19.7%)	Base	24 (1.0%)	Base	18 (0.7%)	Base	49 (2.0%)	Base	26 (1.1%)	Base	133 (5.4%)	Base	92 (74.2%)	Base	49 (39.5%)	Base	
	77-128	1 (0.2%)	Not computed	2 (0.3%)	0.47 (0.07–3.15)	1 (0.2%)	Not computed	2 (0.3%)	0.09 [^] (0.01–0.66)	1 (0.2%)	Not computed	1 (0.2%)	Not computed	1 (0.2%)	Not computed	1 (0.2%)	Not computed	1 (0.2%)	Not computed	2 (0.3%)	0.18 (0.02–1.28)	163 (25.6%)	3.53 * (2.81–4.43)	6 (85.7%)	1.59 [^] (1.09–2.33)	2 (28.6%)	Not computed	
	129-220	0 (0.0%)	Not computed	0 (0.0%)	Not computed	0 (0.0%)	Not computed	0 (0.0%)	Not computed	1 (1.2%)	Not computed	3 (3.6%)	0.07 * (0.02–0.27)	0 (0.0%)	Not computed	0 (0.0%)	Not computed	0 (0.0%)	Not computed	1 (1.2%)	Not computed	5 (6.0%)	0.82 (0.31–2.18)	1 (100.0%)	Not computed	0 (0.0%)	Not computed	
	>220	3 (0.6%)	Not computed	3 (0.6%)	Not computed	0 (0.0%)	Not computed	4 (0.8%)	0.41 (0.12–1.40)	5 (1.0%)	0.22 [^] (0.08–0.64)	0 (0.0%)	Not computed	0 (0.0%)	Not computed	1 (0.2%)	0.34 (0.04–3.03)	0 (0.0%)	Not computed	4 (0.8%)	0.92 (0.23–3.67)	0 (0.0%)	Not computed	3 (60.0%)	0.90 (0.36–2.25)	3 (60.0%)	1.72 (0.66–4.46)	
BMI ⁴	Underweight (<18.5)	2 (0.8%)	Base	2 (0.8%)	Base	3 (1.1%)	Base	4 (1.5%)	Base	9 (3.4%)	Base	39 (14.7%)	Base	4 (1.5%)	Base	3 (1.1%)	Base	6 (2.3%)	Base	4 (1.5%)	Base	22 (8.3%)	Base	9 (75.0%)	Base	7 (58.3%)	Base	
	Normal (18.5 – 24.9)	21 (0.9%)	1.15 (0.26–5.06)	9 (0.4%)	0.43 (0.09–1.96)	11 (0.5%)	Not computed	51 (2.2%)	1.66 (0.52–5.33)	101 (4.4%)	1.53 (0.80–2.91)	307 (13.4%)	1.04 (0.79–1.37)	13 (0.6%)	Not computed	9 (0.4%)	0.61 (0.14–2.76)	32 (1.4%)	Not computed	17 (0.7%)	0.71 (0.20–2.47)	179 (7.8%)	0.85 (0.57–1.27)	61 (74.4%)	1.08 (0.73–1.59)	33 (40.2%)	0.77 (0.41–1.44)	
	Pre-obesity / Obesity (≥25)	11 (1.2%)	1.55 (0.33–7.19)	3 (0.3%)	0.44 (0.08–2.42)	3 (0.3%)	Not computed	17 (1.9%)	1.30 (0.49–5.83)	33 (3.7%)	1.23 (0.62–2.45)	134 (14.8%)	1.02 (0.75–1.37)	6 (0.7%)	Not computed	5 (0.6%)	0.69 (0.14–3.39)	11 (1.2%)	Not computed	8 (0.9%)	0.84 (0.21–3.39)	86 (9.5%)	0.96 (0.63–1.46)	30 (90.9%)	1.32 (0.91–1.93)	13 (39.4%)	0.73 (0.36–1.48)	
Chronic disease ⁵	No	21 (0.9%)	Base	5 (0.2%)	Base	6 (0.3%)	Base	37 (1.6%)	Base	46 (2.0%)	Base	474 (20.3%)	Base	20 (0.9%)	Base	14 (0.6%)	Base	21 (0.9%)	Base	20 (0.9%)	Base	263 (11.2%)	Base					
	Yes	13 (9.4%)	5.54 [^] (2.01–15.2)	10 (7.2%)	74.63 * (9.50–586.36)	6 (4.3%)	Not computed	22 (15.8%)	5.28 * (2.54–11.00)	91 (65.5%)	13.69 * (9.26–20.22)	11 (7.9%)	0.22 * (0.11–0.43)	7 (5.0%)	Not computed	7 (5.0%)	3.32 (0.94–11.78)	28 (20.1%)	Not computed	11 (7.9%)	5.95 [^] (1.64–21.60)	39 (28.1%)	3.13 * (2.23–4.39)					

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PESH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and robust error variance was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

Table 2c: Table of number & proportion of residents expressing interest in service by explanatory variables in Kenya

Service Need		INFO	INFO Risk Ratio (95% CI)	INFOFB	INFOFB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PHSH ³	PHSH ³ Risk Ratio (95% CI)
Demographic variables	Female	2 859 (10.3%)	Base	3 548 (12.8%)	Base	3 602 (13.0%)	Base	5 946 (21.5%)	Base	9 583 (34.6%)	Base	6 218 (22.4%)	Base	9 256 (33.4%)	Base	4 762 (17.2%)	Base	2 713 (9.8%)	Base	2 506 (9.0%)	Base	7 715 (27.8%)	Base	330 (11.8%)	Base	218 (7.7%)	Base
	Male	2 440 (11.4%)	1.17* (1.10–1.24)	2 934 (13.7%)	1.23* (1.16–1.30)	2 920 (13.7%)	1.16* (1.10–1.23)	4 703 (22.0%)	1.04 (0.99–1.08)	7 673 (35.9%)	1.09* (1.06–1.13)	4 795 (22.4%)	1.04 (1.00–1.07)	6 566 (30.7%)	0.95^ (0.92–0.98)	3 506 (16.4%)	0.94^ (0.90–0.99)	2 227 (10.4%)	1.08^ (1.01–1.15)	2 267 (10.6%)	1.21* (1.13–1.28)	5 720 (26.7%)	1.00 (0.96–1.03)	176 (6.3%)	1.14 (0.99–1.33)	210 (7.7%)	1.28^ (1.04–1.57)
Age group	0-20	1 317 (10.2%)	Base	1 468 (11.3%)	Base	1 241 (9.6%)	Base	2 399 (18.5%)	Base	3 967 (30.6%)	Base	1 486 (11.5%)	Base	4 225 (32.6%)	Base	2 470 (19.1%)	Base	1 065 (8.2%)	Base	588 (4.5%)	Base	2 895 (22.4%)	Base	41 (6.8%)	Base	114 (19.0%)	Base
	20-30	1 371 (14.5%)	0.65* (0.58–0.73)	1 606 (17.0%)	0.72* (0.65–0.81)	1 307 (13.9%)	0.84^ (0.73–0.97)	2 217 (23.5%)	0.79* (0.72–0.87)	3 432 (36.4%)	0.87* (0.82–0.93)	2 071 (22.0%)	1.00 (0.90–1.11)	3 084 (32.7%)	0.99 (0.92–1.08)	1 441 (15.3%)	0.89 (1.01)	1 042 (11.0%)	0.84^ (0.72–0.98)	1 033 (11.0%)	0.94 (0.80–1.09)	2 657 (28.2%)	0.93 (0.85–1.01)	37 (1.5%)	0.99 (0.36–2.70)	38 (2.0%)	0.39^ (0.16–0.92)
	30-40	1 005 (11.9%)	0.48* (0.43–0.54)	1 257 (14.9%)	0.57* (0.51–0.64)	1 284 (15.2%)	0.77^ (0.71–0.82)	1 912 (22.6%)	0.71* (0.64–0.78)	3 256 (38.5%)	0.92^ (0.86–0.98)	2 464 (29.1%)	1.23* (1.10–1.37)	2 913 (34.4%)	1.05 (0.97–1.14)	1 443 (17.1%)	0.98 (0.87–1.10)	1 014 (12.0%)	0.86^ (0.74–1.00)	1 191 (14.1%)	0.99 (0.93–1.28)	2 547 (30.1%)	0.92 (0.84–1.00)	60 (7.3%)	2.03 (0.78–5.32)	34 (4.1%)	0.70 (0.31–1.56)
	40-50	844 (10.8%)	0.45* (0.40–0.51)	1 065 (13.6%)	0.50* (0.44–0.56)	1 266 (16.2%)	0.86^ (0.74–0.99)	1 868 (23.9%)	0.75* (0.68–0.83)	2 937 (37.5%)	0.94 (1.01)	2 139 (27.3%)	1.27* (1.14–1.41)	2 414 (30.8%)	1.02 (0.94–1.11)	1 263 (16.1%)	0.99 (0.87–1.13)	888 (11.3%)	0.88 (0.76–1.03)	943 (12.0%)	0.97 (0.83–1.06)	2 300 (29.4%)	0.97 (0.89–1.06)	79 (3.1%)	1.96 (0.75–5.11)	48 (2.5%)	0.66 (0.30–1.46)
	≥50	762 (7.3%)	0.30* (0.26–0.34)	1 086 (10.4%)	0.33* (0.29–0.37)	1 426 (13.7%)	0.74* (0.64–0.86)	2 254 (21.6%)	0.75* (0.68–0.83)	3 667 (35.2%)	0.87* (0.82–0.94)	2 857 (27.4%)	1.25* (1.13–1.39)	3 189 (30.6%)	1.02 (0.94–1.10)	1 651 (15.8%)	0.98 (0.87–1.10)	931 (8.9%)	0.72* (0.62–0.84)	1 018 (9.8%)	0.77* (0.66–0.91)	3 040 (29.2%)	0.97 (0.89–1.06)	289 (51.6%)	2.13 (0.83–5.51)	194 (34.6%)	0.82 (0.39–1.75)
Household income (USD)	≤76	2 491 (11.6%)	Base	3 100 (14.4%)	Base	3 189 (14.8%)	Base	5 186 (24.1%)	Base	9 100 (42.3%)	Base	5 240 (24.3%)	Base	8 222 (38.2%)	Base	4 433 (20.6%)	Base	2 549 (11.8%)	Base	2 122 (9.9%)	Base	6 650 (30.9%)	Base	379 (54.6%)	Base	236 (34.0%)	Base
	77-128	1 391 (13.5%)	1.36* (1.27–1.46)	1 883 (18.3%)	1.32* (1.24–1.41)	1 887 (18.3%)	1.10^ (1.03–1.18)	2 137 (20.7%)	0.96 (0.91–1.01)	3 845 (37.3%)	0.92* (0.89–0.95)	3 515 (34.1%)	1.33* (1.28–1.39)	2 842 (27.6%)	0.73* (0.70–0.76)	1 550 (15.0%)	0.71* (0.67–0.75)	1 203 (11.7%)	1.09^ (1.01–1.17)	1 374 (13.3%)	1.27* (1.18–1.36)	3 834 (37.2%)	1.25* (1.21–1.30)	61 (32.5%)	0.58* (0.45–0.74)	49 (26.1%)	0.74^ (0.55–0.99)
	129-220	684 (27.3%)	2.49* (2.28–2.71)	595 (23.8%)	1.90* (1.74–2.07)	549 (21.9%)	1.57* (1.44–1.72)	902 (36.0%)	1.59* (1.49–1.69)	1 053 (42.1%)	0.98 (0.93–1.03)	855 (34.2%)	1.24* (1.16–1.32)	959 (38.3%)	0.98 (0.93–1.04)	527 (21.1%)	0.98 (0.90–1.07)	487 (19.5%)	1.64* (1.48–1.81)	489 (19.5%)	1.62* (1.47–1.79)	1 023 (40.9%)	1.32* (1.24–1.39)	7 (11.8%)	0.21* (0.11–0.42)	5 (7.4%)	0.23^ (0.10–0.53)
	>220	369 (30.2%)	2.96* (2.66–3.29)	349 (28.5%)	2.39* (2.15–2.67)	396 (32.4%)	2.39* (2.17–2.63)	583 (47.7%)	2.07* (1.92–2.23)	528 (43.2%)	1.02 (0.95–1.10)	393 (32.1%)	1.29* (1.18–1.41)	477 (39.0%)	1.02 (0.94–1.11)	331 (27.1%)	1.39* (1.25–1.54)	326 (26.7%)	2.35* (2.10–2.63)	278 (22.7%)	2.17* (1.93–2.44)	434 (35.5%)	1.21* (1.11–1.32)	6 (35.3%)	0.67 (0.32–1.38)	2 (11.8%)	0.42 (0.12–1.52)
BMI ⁴	Underweight (<18.5)	49 (5.6%)	Base	54 (6.1%)	Base	53 (6.0%)	Base	180 (20.5%)	Base	287 (32.7%)	Base	144 (16.4%)	Base	391 (44.5%)	Base	267 (30.4%)	Base	111 (12.6%)	Base	64 (7.3%)	Base	252 (28.7%)	Base	8 (24.2%)	Base	6 (18.2%)	Base
	Normal (18.5 – 24.9)	2 414 (11.0%)	2.72* (1.94–3.81)	2 647 (12.1%)	2.68* (1.88–3.80)	2 594 (11.8%)	2.51* (1.79–3.52)	4 417 (20.2%)	0.93 (0.81–1.07)	7 809 (35.6%)	1.16^ (1.05–1.29)	5 862 (26.7%)	1.79* (1.49–2.14)	6 482 (29.6%)	0.73* (0.67–0.79)	3 362 (15.3%)	0.60* (0.54–0.67)	2 296 (10.5%)	0.85 (0.70–1.03)	2 713 (12.4%)	1.82* (1.37–2.42)	6 108 (27.9%)	0.93 (0.83–1.04)	215 (21.5%)	1.41 (0.78–2.57)	209 (20.9%)	1.76 (0.71–4.38)
	Pre-obesity / Obesity (≥25)	1 804 (12.4%)	3.18* (2.27–4.46)	2 638 (18.2%)	4.08* (2.87–5.79)	2 774 (19.1%)	3.59* (2.56–5.04)	3 984 (27.4%)	1.10 (0.96–1.27)	5 636 (38.8%)	1.19* (1.07–1.32)	3 587 (24.7%)	1.59* (1.32–1.91)	4 882 (33.6%)	0.80* (0.73–0.86)	2 279 (15.7%)	0.52* (0.46–0.58)	1 442 (11.3%)	0.82* (0.67–0.99)	1 545 (10.6%)	1.49^ (1.12–1.98)	4 217 (29.0%)	0.90 (0.81–1.01)	219 (54.8%)	1.70 (0.93–3.10)	140 (35.0%)	2.21 (0.89–0.70)
Chronic disease ⁵	No	4 671 (11.1%)	Base	5 273 (12.5%)	Base	5 233 (12.4%)	Base	9 196 (21.8%)	Base	15 032 (35.6%)	Base	9 798 (23.2%)	Base	14 450 (34.2%)	Base	7 569 (17.9%)	Base	4 489 (10.6%)	Base	4 183 (9.9%)	Base	11 890 (28.2%)	Base				
	Yes	175 (10.1%)	1.33^ (1.13–1.56)	99 (5.7%)	0.35* (0.26–0.48)	141 (8.1%)	0.80^ (0.67–0.97)	341 (19.6%)	0.99 (0.88–1.12)	779 (44.8%)	1.01 (0.93–1.09)	217 (12.5%)	0.67* (0.59–0.77)	401 (23.1%)	0.98 (0.90–1.07)	204 (11.7%)	0.97 (0.84–1.10)	66 (3.8%)	0.48* (0.37–0.63)	146 (8.4%)	1.00 (0.83–1.21)	307 (17.7%)	0.82* (0.73–0.91)				

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PHSH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and robust error variance was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

Table 2f: Table of number & proportion of residents expressing interest in service by explanatory variables in South Africa

Service Need		INFO	INFO Risk Ratio (95% CI)	INFO-FB	INFO-FB Risk Ratio (95% CI)	DREM	DREM Risk Ratio (95% CI)	LHE	LHE Risk Ratio (95% CI)	DOC ¹	DOC ¹ Risk Ratio (95% CI)	DIAG	DIAG Risk Ratio (95% CI)	NUTR	NUTR Risk Ratio (95% CI)	CHP	CHP Risk Ratio (95% CI)	OTC	OTC Risk Ratio (95% CI)	MEDS	MEDS Risk Ratio (95% CI)	VACC	VACC Risk Ratio (95% CI)	PSG ²	PSG ² Risk Ratio (95% CI)	PHSH ³	PHSH ³ Risk Ratio (95% CI)
Demographic variables	Female	1 785 (2.7%)	Base	13 731 (21.0%)	Base	9 041 (13.8%)	Base	18 812 (28.8%)	Base	17 504 (26.1%)	Base	3 558 (5.5%)	Base	13 397 (20.5%)	Base	1 372 (2.1%)	Base	1 264 (1.9%)	Base	2 763 (4.2%)	Base	6 052 (9.3%)	Base	836 (12.3%)	Base	423 (9.7%)	Base
	Male	1 364 (2.8%)	0.95 (0.86–1.04)	11 443 (23.8%)	1.10* (1.07–1.13)	6 226 (12.9%)	0.91* (0.88–0.95)	12 103 (25.1%)	0.86* (0.84–0.88)	11 461 (23.8%)	0.86* (0.84–0.88)	2 495 (5.2%)	0.95 (0.89–1.01)	9 107 (18.9%)	1.00 (0.97–1.03)	873 (1.8%)	0.80* (0.71–0.90)	843 (1.8%)	0.99 (0.87–1.14)	1 687 (3.5%)	0.84* (0.78–0.91)	4 550 (9.5%)	0.97 (0.93–1.01)	417 (28.8%)	Base	1.04 (0.91–1.19)	208 (9.5%)
Age group	0-20	443 (2.5%)	Base	3 622 (20.0%)	Base	1 533 (8.5%)	Base	3 105 (17.2%)	Base	3 743 (20.7%)	Base	648 (3.6%)	Base	4 597 (25.4%)	Base	650 (3.6%)	Base	682 (3.8%)	Base	435 (2.4%)	Base	1 702 (9.4%)	Base	42 (28.8%)	Base	18 (12.3%)	Base
	20-30	1 030 (3.3%)	1.11 (0.82–1.43)	7 825 (25.0%)	0.88^ (0.82–0.95)	4 763 (15.2%)	1.47* (1.29–1.69)	7 607 (24.3%)	1.99* (1.76–2.24)	7 526 (24.0%)	1.18^ (1.07–1.29)	1 172 (5.5%)	1.19 (0.98–1.46)	6 502 (20.7%)	0.74* (0.68–0.80)	600 (1.9%)	0.78 (0.58–1.05)	467 (1.4%)	0.74 (0.53–1.04)	1 214 (3.9%)	2.12* (1.45–3.10)	2 556 (8.2%)	0.73* (0.64–0.83)	119 (20.8%)	0.57 (0.29–1.15)	31 (5.4%)	0.52 (0.13–2.09)
	30-40	1 018 (2.8%)	0.88 (0.68–1.14)	7 777 (21.5%)	0.76* (0.71–0.82)	5 510 (15.2%)	1.36* (1.18–1.55)	12 469 (34.5%)	2.87* (2.54–3.23)	9 960 (27.6%)	1.31* (1.20–1.44)	2 187 (6.1%)	1.28^ (1.04–1.56)	5 963 (16.5%)	0.57* (0.53–0.62)	560 (1.6%)	0.61* (0.45–0.83)	552 (1.5%)	0.57* (0.41–0.81)	1 534 (4.2%)	2.08* (3.05)	3 742 (10.4%)	0.85* (1.09)	287 (17.6%)	0.41^ (0.21–0.82)	128 (20.2–2.96)	0.76 (2.96)
	40-50	440 (2.5%)	0.84 (0.64–1.12)	3 795 (21.7%)	0.84* (0.77–0.90)	2 096 (12.0%)	0.99 (0.86–1.15)	5 120 (29.3%)	2.49* (2.20–2.81)	4 312 (24.7%)	1.10 (1.00–1.21)	900 (5.2%)	1.12 (0.90–1.38)	3 254 (18.6%)	0.65* (0.60–0.71)	247 (1.4%)	0.57* (0.41–0.79)	255 (1.5%)	0.60^ (0.42–0.87)	792 (4.5%)	1.66^ (1.13–2.46)	1 575 (9.0%)	0.92 (0.80–1.05)	295 (15.8%)	0.40^ (0.20–0.79)	157 (8.4%)	0.85 (3.27)
	≥50	225 (2.1%)	0.70* (0.51–0.96)	2 215 (20.8%)	0.92^ (0.85–1.00)	1 396 (13.1%)	1.06 (0.91–1.23)	2 667 (25.1%)	2.43* (2.15–2.76)	3 012 (28.3%)	1.24* (1.12–1.36)	615 (5.8%)	1.44^ (1.16–1.78)	2 226 (20.9%)	0.68* (0.62–0.74)	191 (1.8%)	0.73 (0.52–1.03)	156 (1.5%)	0.57* (0.38–0.84)	488 (4.6%)	1.23 (0.83–1.83)	1 050 (9.9%)	1.18^ (1.03–1.35)	512 (21.9%)	0.58 (0.30–1.14)	297 (12.7%)	1.39 (5.35)
Household income (USD)	≤76	1 058 (3.5%)	Base	7 373 (24.7%)	Base	3 096 (10.4%)	Base	6 266 (21.0%)	Base	6 575 (24.9%)	Base	1 543 (5.2%)	Base	6 075 (20.3%)	Base	609 (2.0%)	Base	677 (2.3%)	Base	1 039 (3.5%)	Base	2 685 (9.0%)	Base	330 (18.6%)	Base	152 (8.0%)	Base
	77-128	627 (3.8%)	1.31* (1.14–1.49)	5 445 (33.1%)	1.24* (1.20–1.29)	1 876 (11.4%)	1.21* (1.13–1.29)	6 345 (38.6%)	1.91* (1.85–1.98)	3 550 (21.6%)	0.96 (0.92–1.00)	833 (5.1%)	0.81* (0.74–0.90)	2 653 (16.1%)	0.72* (0.69–0.75)	238 (1.5%)	0.46* (0.37–0.57)	188 (1.1%)	0.65* (0.81)	445 (2.7%)	0.58* (0.50–0.68)	1 106 (7.4%)	0.53* (0.49–0.58)	190 (19.2%)	0.89 (6.7%)	64 (6.5%)	0.51* (0.37–0.69)
	129-220	390 (2.5%)	0.65* (0.55–0.77)	2 699 (17.5%)	0.70* (0.67–0.74)	2 042 (13.2%)	1.44* (1.35–1.54)	3 875 (25.1%)	1.30* (1.25–1.36)	5 470 (35.4%)	1.75* (1.69–1.82)	1 755 (11.4%)	1.93* (1.79–2.09)	2 560 (16.6%)	0.66* (0.63–0.69)	280 (1.8%)	0.69* (0.57–0.83)	295 (1.9%)	1.15 (0.96–1.39)	648 (4.2%)	0.92 (0.81–1.04)	1 743 (11.3%)	1.07^ (1.01–1.15)	195 (17.8%)	0.76^ (0.61–0.94)	99 (9.1%)	0.70* (0.53–0.93)
	>220	979 (2.5%)	1.01 (0.90–1.13)	9 005 (23.3%)	0.92* (0.89–0.95)	7 209 (18.6%)	1.96* (1.86–2.06)	12 528 (32.4%)	1.56* (1.51–1.61)	10 408 (26.9%)	1.24* (1.20–1.28)	1 633 (4.2%)	0.69* (0.63–0.74)	6 273 (16.2%)	0.67* (0.65–0.70)	684 (1.8%)	0.80* (0.69–0.92)	393 (1.0%)	0.66* (0.55–0.78)	2 117 (5.5%)	1.56* (1.43–1.70)	4 197 (10.9%)	0.90* (0.85–0.94)	482 (24.8%)	1.43* (1.23–1.67)	267 (13.8%)	1.29* (1.05–1.57)
BMI ⁴	Underweight (<18.5)	128 (3.6%)	Base	1 635 (46.6%)	Base	772 (22.0%)	Base	603 (17.2%)	Base	1 032 (29.4%)	Base	141 (4.0%)	Base	485 (13.8%)	Base	84 (2.4%)	Base	48 (1.4%)	Base	158 (4.5%)	Base	206 (5.9%)	Base	13 (7.1%)	Base	27 (14.8%)	Base
	Normal (18.5 – 24.9)	993 (3.0%)	0.70* (0.58–0.85)	7 517 (22.9%)	0.50* (0.48–0.52)	3 935 (12.0%)	0.46* (0.42–0.49)	8 997 (27.5%)	1.82* (1.66–2.00)	7 786 (23.8%)	0.73* (0.69–0.78)	1 854 (5.7%)	1.12 (0.98–1.41)	6 776 (20.7%)	1.54* (1.38–1.71)	448 (1.4%)	0.52* (0.39–0.68)	405 (1.2%)	0.82 (0.58–1.14)	1 229 (3.8%)	0.79^ (0.65–0.95)	3 082 (9.4%)	1.72* (1.46–2.02)	194 (11.7%)	1.55 (0.90–2.67)	138 (8.3%)	0.46* (0.32–0.68)
	Pre-obesity / Obesity (≥25)	988 (1.9%)	0.43* (0.35–0.52)	10 904 (20.5%)	0.41* (0.39–0.43)	7 866 (14.8%)	0.54* (0.50–0.58)	16 451 (30.9%)	1.86* (1.69–2.04)	13 847 (26.0%)	0.79* (0.74–0.84)	3 098 (5.8%)	1.33^ (1.11–1.60)	10 381 (19.5%)	1.54* (1.38–1.71)	884 (1.7%)	0.72* (0.55–0.94)	593 (1.1%)	0.81 (0.58–1.13)	2 068 (3.9%)	0.77^ (0.64–0.93)	5 169 (9.7%)	1.79* (1.53–2.11)	730 (19.5%)	2.47^ (1.44–4.23)	375 (10.0%)	0.46* (0.32–0.67)
Chronic disease ⁵	No	2 714 (2.9%)	Base	20 308 (21.8%)	Base	12 578 (13.5%)	Base	27 432 (29.5%)	Base	22 831 (24.5%)	Base	4 791 (5.2%)	Base	16 915 (18.2%)	Base	1 916 (2.1%)	Base	1 432 (1.5%)	Base	2 568 (2.8%)	Base	9 491 (10.2%)	Base				
	Yes	97 (1.5%)	0.52* (0.40–0.68)	1 107 (16.9%)	0.85* (0.80–0.90)	653 (10.0%)	0.71* (0.65–0.78)	641 (9.8%)	0.25* (0.23–0.27)	2 074 (31.6%)	1.12* (1.07–1.18)	445 (6.8%)	1.08 (0.96–1.21)	2 483 (37.9%)	2.62* (2.51–2.73)	128 (2.0%)	1.33* (1.09–1.63)	125 (1.9%)	1.71* (1.35–2.16)	1 089 (16.6%)	8.40* (7.74–9.13)	326 (5.0%)	0.32* (0.28–0.37)				

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; PSG, “Connecting with other patients with the same condition as me”; PHSH, “Home personal health services”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² The denominators are adjusted to only include respondents with chronic diseases

³ Respondents who do not identify with either female or male gender were excluded from the analysis as their gender identity was not explored further in the survey

⁴ Respondents below the age of 18 were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁵ Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

⁶ Poisson regression model with logarithmic link function and robust error variance was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome.

⁷ Association between explanatory variables in the model and the outcome which had a p-value of <0.0001 or between 0.05 and 0.0001 are marked with a * or ^ respectively.

Supplementary File 4 – Number and Proportion of Residents Indicating Specific Service Gaps (Poisson model with interaction between household income and chronic disease)

Table 3: Adjusted risk ratios for the association between residents expressing interest in services and chronic disease stratified by household income across all countries

Household income (USD)	Chronic disease ²	INFO	INFOFB	DREM	LHE	DOC ¹	DIAG	NUTR	CHP	OTC	MEDS	VACC
		Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)	Risk Ratio (95% CI)
≤76	No	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base
	Yes	1.79 (0.94–3.42)	0.87 (0.54–1.38)	1.42 (0.93–2.19)	1.10 (0.77–1.58)	1.82 (1.02–3.22)	1.48 (0.73–2.98)	1.35 (0.98–1.86)	1.30 (0.75–2.26)	1.27 (0.90–1.78)	2.40 (0.81–7.08)	1.15 (0.75–1.77)
77-128	No	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base
	Yes	1.56 (1.05–2.32)	1.38 (0.75–2.55)	1.13 (0.66–1.96)	0.82 (0.35–1.93)	1.52 (0.94–2.47)	1.03 (0.32–3.36)	1.46 (1.05–2.03)	1.37 (0.68–2.75)	1.30 (0.81–2.08)	1.51 (0.70–3.29)	1.04 (0.52–2.11)
129-220	No	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base
	Yes	1.21 (0.71–2.08)	0.81 (0.70–0.95)	1.23 (0.66–2.29)	0.85 (0.43–1.69)	1.26 (0.78–2.03)	0.88 (0.44–1.78)	1.32 (0.82–2.13)	1.28 (0.51–3.24)	1.21 (0.75–1.97)	2.69 (0.95–7.59)	0.97 (0.51–1.87)
>220	No	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base	Base
	Yes	1.12 (0.29–4.33)	0.80 (0.55–1.15)	0.94 (0.46–1.90)	0.45 (0.15–1.31)	1.45 (0.88–2.41)	2.26 (1.38–3.70)	1.97 (1.08–3.60)	1.47 (0.67–3.22)	1.19 (0.45–3.16)	4.05 (2.45–6.74)	0.89 (0.37–2.15)
p-value ⁴		0.302	<0.001	0.004	<0.001	0.196	<0.001	0.001	0.772	0.793	<0.001	0.721

Abbreviations: INFO, “Health articles I can read myself”; INFO-FB, “Health information through Facebook or Whatsapp”; DREM, “Phone reminders for a healthier lifestyle”; LHE, “Local health events”; DOC, “Physician services”; DIAG, “Diagnostic / screening services”; NUTR, “Nutrition or wellness products”; CHP, “Consumer health products”; OTC, “Consumer non-prescription medication”; MEDS, “Affordable medicines”; VACC, “Vaccines”; USD, United States Dollars; BMI, Body mass index.

¹ Expressing need for Physician services was reflected by a respondent requesting “Doctors visits to the community”, or “Access to doctors via phone / video call” or both.

² Includes respondents who self-reported either Alzheimer’s or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

³ Poisson regression model with logarithmic link function and variance adjusted for potential correlation within countries was used to estimate risk ratios studying the relationship between explanatory variables of gender, age group, household income, BMI, chronic disease (employment was excluded from the model due to concern for bias as a result of poor data availability) and the outcome. Interaction between household income and chronic disease was included in this model, and only the stratified risk ratios are presented.

⁴ The p-value represents the result of a Wald test for joint significance of the interaction term.

⁵ Pearson chi-square dispersion tests were done to check for overdispersion of data, for which overdispersion was minimal in all the models.

Supplementary File 5 – Non-response analysis

Table S1: Demographic data of Sample by country

Country	All countries		India		Philippines		Indonesia		Cambodia		Kenya		South Africa		
	Full dataset	Study sample	Full dataset	Study sample	Full dataset	Study sample	Full dataset	Study sample	Full dataset	Study sample	Full dataset	Study sample	Full dataset	Study sample	
Sample population	513 730	484 153	72 234	70 290	63 261	59 567	204 453	187 802	4 616	3 661	51 894	49 115	117 272	113 718	
Gender ¹ (Female)	265 076 (51.6%)	250 489 (51.8%)	32 184 (44.6%)	31 225 (44.5%)	32 760 (51.8%)	31 030 (52.1%)	101 005 (49.4%)	93 030 (50.0%)	2 736 (59.3%)	2 157 (58.9%)	29 079 (56.1%)	27 708 (56.4%)	67 312 (57.5%)	65 339 (57.6%)	
Age	Median: 35 IQR: 26, 46	Median: 35 IQR: 26, 46	Median: 37 IQR: 30, 46	Median: 37 IQR: 30, 46	Median: 39 IQR: 27, 54	Median: 39 IQR: 27, 54	Median: 36 IQR: 26, 47	Median: 35 IQR: 26, 47	Median: 42 IQR: 30, 58	Median: 42 IQR: 30, 58	Median: 31 IQR: 18, 46	Median: 32 IQR: 19, 47	Median: 31 IQR: 23, 40	Median: 31 IQR: 23, 39	
Employed ²	31 229 (52.2%)	27 493 (52.3%)	3 113 (66.4%)	2 308 (62.7%)	16 965 (53.2%)	15 329 (53.6%)	2 870 (58.2%)	2 316 (56.8%)	2 375 (77.3%)	2 241 (81.0%)	5 906 (38.7%)	5 299 (39.4%)	No observations	No observations	
Household income (SUSD)	≤76	162 460 (37.6%)	151 718 (36.9%)	7 961 (11.7%)	7 369 (11.1%)	34 381 (62.4%)	32 020 (62.1%)	63 507 (38.5%)	58 469 (37.9%)	3 330 (72.3%)	2 449 (67.0%)	22 776 (60.5%)	21 530 (60.5%)	30 505 (30.0%)	29 881 (29.8%)
	77-128	102 298 (23.7%)	97 717 (23.7%)	26 113 (38.4%)	25 308 (38.2%)	11 430 (20.7%)	10 589 (20.5%)	36 500 (22.1%)	34 415 (22.3%)	651 (14.1%)	638 (17.5%)	10 917 (29.0%)	10 331 (29.0%)	16 687 (16.4%)	16 456 (16.4%)
	129-220	80 297 (18.6%)	77 665 (18.9%)	21 264 (31.3%)	20 980 (31.7%)	6 447 (11.7%)	6 231 (12.1%)	34 105 (20.7%)	32 423 (21.0%)	105 (2.3%)	83 (2.3%)	2 672 (7.1%)	2 504 (7.0%)	15 704 (15.4%)	15 444 (15.4%)
	>220	87 127 (20.2%)	84 562 (20.5%)	12 707 (18.7%)	12 606 (19.0%)	2 874 (5.2%)	2 752 (5.3%)	30 866 (18.7%)	28 827 (18.7%)	523 (11.4%)	485 (13.3%)	1 314 (3.5%)	1 223 (3.4%)	38 843 (38.2%)	38 669 (38.5%)
BMI ³	Median: 23.6 IQR: 21.3, 26.6	Median: 23.6 IQR: 21.4, 26.6	Median: 25.4 IQR: 22.6, 28.3	Median: 25.4 IQR: 22.6, 28.3	Median: 22.3 IQR: 20.2, 25.0	Median: 22.3 IQR: 20.2, 25.0	Median: 22.7 IQR: 20.8, 24.8	Median: 22.7 IQR: 20.8, 24.8	Median: 22.6 IQR: 20.4, 25.1	Median: 22.7 IQR: 20.5, 25.2	Median: 24.0 IQR: 22.0, 27.3	Median: 24.0 IQR: 22.1, 27.3	Median: 26.3 IQR: 23.1, 29.8	Median: 26.3 IQR: 23.1, 29.8	
Has Chronic disease ⁴	25 258 (6.4%)	24 505 (6.4%)	1 507 (4.6%)	1 488 (4.6%)	9 491 (17.8%)	8 987 (17.7%)	5 778 (3.6%)	5 596 (3.6%)	141 (5.2%)	139 (5.6%)	1 773 (4.0%)	1 738 (4.0%)	6 568 (6.5%)	6 557 (6.6%)	

Abbreviations: USD, United States Dollars; BMI, Body mass index; IQR, Interquartile range

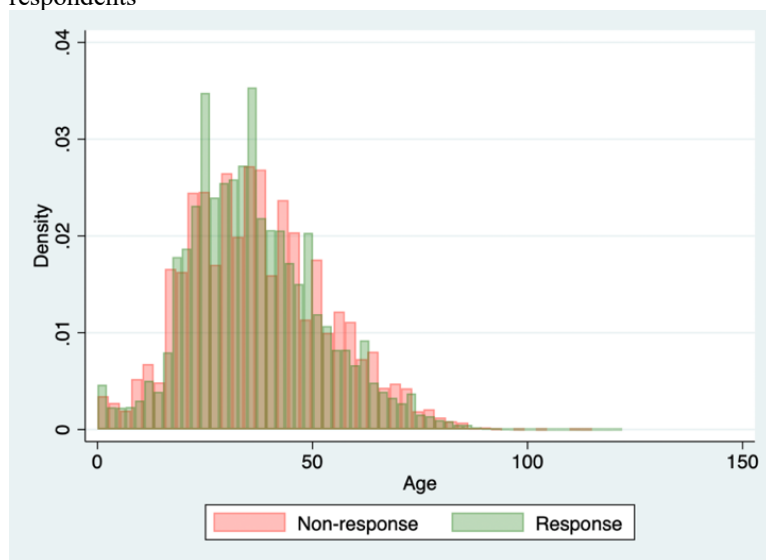
¹ Respondents who do not identify with either female or male gender (N=389) were excluded from the analysis as their gender identity was not explored further in the survey

² Employment data was not collected from South African respondents, and thus their data is not available

³ Respondents below the age of 18 (N=35 661 in full dataset & N=33 085 in study sample) were excluded from this analysis, and extreme heights, weights, and BMI readings were assumed to be errors in recording

⁴ Includes respondents who self-reported either Alzheimer's or other dementias, Asthma, Cancer, Chronic obstructive pulmonary disorder, Liver cirrhosis, Coronary artery disease, Diabetes, Hepatitis B infection, Hepatitis C infection, Human immunodeficiency virus infection, Hypertension, Ischemic heart disease, Kidney disease, Tuberculosis, or a history of Stroke only.

Graph S1: Comparing the age distribution of respondents and non-respondents



Graph S2: Comparing the body mass index distribution of respondents and non-respondents

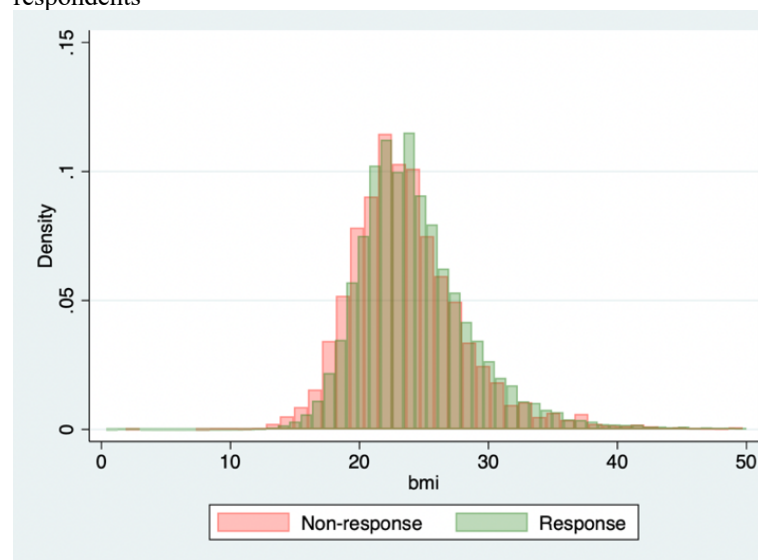


Table S2: Table of missing explanatory variable data

Demographic variables	Missing data
Gender ¹	389 (0.1%)
Age group	0 (0.0%)
Employed	453 891 (88.4%)
Household income (\$USD)	81 548 (15.9%)
BMI ³	18 402 (3.9%)
Chronic disease	118 367 (23.0%)

Abbreviations: USD, United States Dollars; BMI, Body mass index

¹ Total sample (not accounting for missing data) is 513 730

² Missing gender data stems from inadequate exploration of gender identity amongst respondents who did not identify as either male or female.

³ Missing BMI data excludes 35 661 respondents below the age of 18

Non-response analysis was conducted to determine if there was any bias introduced into the analysis because of missing data or non-response. The approach to the non-response analysis was exploratory, there was no base hypothesis developed to direct the analysis. Although the study had a sample of 484 153 respondents, the original number extracted from the database from July 2022 to October 2023 had 513 730 enrollees. 29 577 enrollees were excluded because they chose the “I don’t know” or “refused” option or did not respond to the outcome variable question: “which of the following products and services would you be interested in”. Table S1 shows the differences in the demographic details of the original full dataset, and the final study sample. Graphs S1 and S2 also compare the age and body mass index distribution of those who responded and did not respond to the outcome variable questions.

There are minimal differences between the full dataset and the study sample. The most outstanding difference is in the Cambodian sample, where the proportion employed increases from 77% in the full dataset to 81% in the study sample, and the proportion in the lowest household income bracket decreases from 72% in the full dataset to 67% in the study sample. This suggests that there is selection bias in the Cambodian sample – where unemployed enrollees of the lowest household income bracket did not respond to the outcome variable question. However, considering the Cambodian sample represents a small proportion of the overall rural sample studied this likely did not impact the overall result significantly.

In Table S2 we also analysed the missing explanatory variable data from the full dataset. Data for age and gender is largely complete (missing gender data stems from respondents who did not respond as either male or female). There is some missing data on height, weight, household income and chronic disease. Most significant is the 88.4% of employment data missing from the full dataset – of which there is no employment data from South African respondents (see Table 1). For this reason, the employment variable was excluded from the regression model.