**Supplemental File 4: Table S4**: Methodological aspects and main findings from studies containing quantitative analyses employing choice-based techniques (n=9)

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| **Study** | **Aims (Method)** | **Population (n)** | **DC (RR)** | **DA1** | **PH** | **Main Findings2** |
| Callan and O'Shea (2015) | Measure the societal value of five HCBS programs: family care, home care packages, telecare (WTP based on CVM: BG with PC) | GP: Stratified random sample of persons aged ≥16 years in Ireland (n = 1.214)  | Structured F2F interviews (n.i.)  | DS, BS, MS (two-stage hurdle model: 1st stage: probit regression, 2nd stage: OLS regression) | MS: marital status, age, gender, income, urban residence, technical proficiency health insurance, future care needs, informal care provision | *DS: Mean (Median) stated WTP (range indicate subsample results):* Family care: 129.05€ (60€) – 195.84€ (125€), home care packages program: 122.01€ (42.50€) – 191,02€ (125€); telecare programs: ***HHCS: HBTP 1 (falls):*** *DS:* 104.25€ (30€); ***HHCS: HBTP 2 (cognitive):*** *DS:* 89.48€ (30€), ***HHCS: HBTP 3 (social connection):*** *DS:* 153.83€ (60€); *BS:* differences between WTP for HBTP significant, p<0.01;*MS (determinants for WTP for “family care”; probit regression):* health insurance (+), high future care needs (+), high technical proficiency (+), higher income (+); *MS (determinants for WTP for “family care”; OLS regression):* health insurance (+), high technical proficiency (+/-), age (vs. 40-50 years): <30y (-), 30-40y (-), 50-60y (-/+), ≥65y (-); *MS (determinants for WTP for “home care”; probit regression):* high future care needs (+), high technical proficiency (+), age ≥65y (-), higher income (+); *MS (determinants for WTP for “home care”; OLS regression):* health insurance (+), informal care provision (+), high technical proficiency (-), age: <30y (-), 30-40y (-), 50-60y (-), ≥65y (-), higher income (+), married (-); *MS (determinants for WTP for ”****HHCS: HBT1 (falls)****”, probit regression):* health insurance (+), high future care needs (+), higher income (+); *MS (determinants for WTP for ”****HHCS: HBT1 (falls)****”, OLS regression):* high technical proficiency (+), age: 50-65y (-), higher income (+), female gender (-); *MS (determinants for WTP for ”****HHCS: HBT2 (cognitive)****”, probit regression):* health insurance (+), high future care needs (+), age: ≥65y (-), higher income (+); *MS (determinants for WTP for ”****HHCS: HBT2 (cognitive)****”, OLS regression):* age: <30y (-), higher income (+), urban residence (-), married (-); *MS (determinants for WTP for ”****HHCS: HBT3 (social connection)****”, probit regression):* high technical proficiency (+), higher income (+), married (-); *MS (determinants for WTP for ”****HHCS: HBT3 (social connection)****”, OLS regression):* health insurance (-), age: 50-65y (-), higher income (+), female gender (-)   |
| Guo *et al.* (2015) | Elicit preferences associated with the receipt of different modes of LTC services, conditional on a range of health states defined by varying levels of functional and cognitive impairment (TTO)  | Purposive sample of adults aged ≥55 years at short-term risk for needing LTC in greater Chicago area, USA (n=81) | Structured F2F interviews (72%) | DS, BS, (MS: OLS)  | (MS: Medicaid coverage, education) | *DS (mean QOL (SD): 0 = dead, 1 = perfect health):* ***HHCS: Condition 1:*** homecare: 0.72 (0.34), NH: 0.43 (0.37), ∆homecare: 0.30 (0.35), *BS*: differences between QOL for homecare and NH significant, p<0.01; *DS:* ***HHCS: Condition 2:*** homecare: 0.68 (0.36), NH: 0.42 (0.38), ∆homecare: 0.26 (0.33), *BS*: differences between QOL for homecare and NH significant, p<0.01; *DS:* ***HHCS: Condition 3:*** homecare: 0.58 (0.38), NH: 0.37 (0.36), ∆homecare: 0.20 (0.32), *BS*: differences between QOL for homecare and NH significant, p<0.01; *DS:* ***HHCS: Condition 4:*** homecare: 0.49 (0.39), NH: 0.33 (0.35), ∆homecare: 0.16 (0.27), *BS*: differences between QOL for homecare and NH significant, p<0.01; *DS:* ***HHCS: Condition 5:*** homecare: 0.40 (0.38), NH: 0.31 (0.34), ∆homecare: 0.09 (0.26), *BS*: differences between QOL for homecare and NH significant, p<0.01; *DS:* ***HHCS: Condition 6:*** homecare: 0.21 (0.26), NH: 0.25 (0.28), ∆homecare: -0.04 (0.18), *BS*: differences between QOL for homecare and NH significant, p<0.1; *MS (predictors for “homecare”; findings from OLS mentioned under “discussion”, p.112):* Medicaid coverage (+), lower education (+) |
| Kaambwa *et al.* (2015) | Identify aspects of consumer aged care services (CACS) that are most important to Australian consumers and informal carers of consumers (DCE: 5 attributes with 3 levels each) | Non-random sample of eligible CACS consumers aged ≥65 years (n=87) and informal carers aged ≥18 years (n=30) recruited via five Australian CACS  | Questionnaire based F2F survey group exercises (28%)  | MS (generalized-MNL)  | Stratification: urban vs. rural, level of CACS received; MS: age, gender, living arrangements, place of birth, education, CDC knowledge, QOL measures | *MS (G-MNL coefficients):* safe all unused funds for future use (β = 0.609), choose some worker providing day-to-day services (β = 0.484), fully flexible workers in CACS plan able to change any of the activities as directed by recipient (β = 0.618); little evidence for unobserved preference heterogeneity among participants, except for “living arrangement”, i.e. participants living alone had more inconsistent responses; *MS (predicted probabilities for choosing a particular DCE package): Most preferred package*: 12.4% (access to multiple providers, save half of unused funds for future use, choose some support workers, medium contact with service provider (agency), budget managed by consumer, care workers partly flexible), *2nd most preferred package*: 12.1% (access to multiple providers, save all unused funds for future use, chose some support workers, high contact with service provider (agency), budget managed by service provider, care workers fully flexible), *3rd most preferred package:* 11.9% (access to multiple providers, save all unused funds for future use, chose all support workers, medium contact with service provider (agency), budget managed by consumer, care workers fully flexible) |
| Sawamura, Sano and Nakanishi (2015) | Examine priorities of the functions of LTC facilities from the viewpoint of future beneficiaries (DCE: 8 attributes with 2-3 levels each)  | GP: stratified random sample with adults aged 50-65 years from eight cities in Japan (n=371) | Postal survey (15.4%) | MS: MNL  | Stratification: HHCS, informal caregiving experience, family income | *MNL coefficients / marginal WTP expressed as changes in levels from a common profile: individual choice for daily schedules/meals partly available, regular care staff available, shared room, main daily interactions mostly with staff/residents, relocation in case of medical deterioration necessary, waiting time >1 year, distance from present residence 40 minutes by car, monthly fee = 250,000 yen:* ***HHCS: Hip fracture:*** relocation unnecessary (β = 1.36 / 85,000 yen), distance from present residence within walking distance (β = 0.67 / 42,000 yen), daily interaction with family/friends (β = 0.64 / 40,000 yen), individual choice for schedule/meals unavailable (β = -0.64 / -40,000 yen), distance from present residence 20 min by car (β = 0.46 / 29,000 yen), change in monthly fee 10,000 yen (β = -0.16); *PH (informal caregiving experience / no experience):* relocation unnecessary (β = 1.92 / 100,000 yen) / (β = 1.56 / 81,000 yen), daily interaction mostly alone (β = -1.02 / -52,000 yen) / (n.s.), distance from present residence within walking distance (β = 0.99 / 51,000 yen) / (β = 0.89 / 46,000 yen); *PH (low income / high income):* relocation unnecessary (β = 1.64 / 84,000 yen) / (β = 2.05 / 105,000 yen), daily interaction mostly alone (n.s.) / (β = -1.43 / -73,000 yen), individual choice for schedule/meals unavailable (n.s.) / (β = -1.36 / -70,000 yen), regular care staff unavailable (n.s.) / (β = -1.21 / -62,000 yen), distance from present residence within walking distance (β = 1.22 / 57,000 yen) / (n.s.); ***HHCS: Dementia:*** relocation unnecessary (β = 1.67 / 105,000 yen), distance from present residence 20 min by car (β = 0.98 / 61,000 yen), personal room (β = 0.87 / 55,000 yen), no waiting time (β = 0.79 / 50,000 yen), distance from present residence within walking distance (β = 0.53 / 33,000 yen), change in monthly fee 10,000 yen (β = -0.16); *PH (informal caregiving experience / no experience):* relocation unnecessary (β = 1.65 / 117,000 yen) / (β = 1.38 / 98,000 yen), distance from present residence 20 min by car (β = 0.81 / 57,000 yen) / (β = 0.95 / 67,000 yen), daily interaction mostly alone daily (β = -0.81 / -58,000 yen) / (n.s.), no waiting time (β = 0.61 / 43,000 yen) / (β = 0.77 / 55,000 yen), individual choice for schedules/meals (β = -0.76 / -54,000 yen) / (n.s.), personal room (n.s.) / (β = 0.95 / 67,000 yen); *PH (low income / high income):* relocation unnecessary (β = 1.68 / 120,000 yen) / (β = 1.40 / 101,000 yen), distance from present residence 20 min by car (β = 0.78 / 56,000 yen) / (β = 0.94 / 68,000 yen), no waiting time (β = 0.71 / 51,000 yen) / (β = 0.77 / 56,000 yen), personal room (β = 0.60 / 43,000 yen) / (β = 0.95 / 68,000 yen)   |
| Guo, Konetzka and Dale (2014) | Explore the feasibility of TTO methods for utility elicitation in QOL and quantify preferences for different LTC services (TTO) | Purposive sample of adults aged ≥50 years and at short-term risk of needing LTC from an urban area in the Midwest, USA (n=18) | 2 FG (n.i.): high education FG (n=8), low education FG (n=10) | DS | n.i.  | *DS (mean QOL (SD): 0 = dead, 1 = perfect health; low-/high education/total sample):* ***HHCS: Mild:*** Homecare: 0.78(0.31)/0.61(0.32)/0.71(0.32), NH: 0.77(0.32)/0.46(0.29)/0.63(0.34); ***HHCS: Moderate:*** Homecare: 0.73(0.32)/0.58(0.31)/0.66(0.31), NH: 0.72(0.33)/0.51(0.35)/0.62(0.34); ***HHCS: Severe:*** Homecare: 0.71(0.34)/0.35(0.30)/0.55(0.37), NH: 0.70(0.35)/0.31(0.31)/0.53(0.38) |
| Robinson *et al.* (2014) | Examine how older people at risk for hip fracture rank possible outcome packages for a patient with a poor functional recovery after a hip fracture (DCE: 4 attributes with 2-3 levels each) | Purposive sample of adults aged ≥70 years (at least 1 fall in the previous five years or are receiving treatment for osteoporosis) recruited from two university teaching hospitals (n=97)  | Structured F2F interviews (53%) | DS, US, MS (linear regressions: utility scores) | US: age, gender, residence, previous fracture / falls, osteoporosis,  | ***HHCS (hip fracture and multi-morbid):*** *MS (importance scores for attributes (in %) and utilities (SE) for attribute levels):* Discharge location (31.3%): Home: 0.48 (0.18), NH: -0.48 (0.18); Length of life (27%): 4 years: -0.62 (0.24), 2 years: -1.25 (0.48), 1 year: -1.87 (0.72); Falls risk (26.4%): once a year: -1.08 (0.22), three times a year: -2.15 (0.44), once a month: -3.23 (0.66); Daughter view (15%): agrees with discharge plan: 0.05 (0.18), disagrees with discharge plan: -0.05 (0.18); *PH*: no significant association between utilities and any of the included variables, however, distribution of individual utility scores for discharge location “home” almost bimodal with 52% having a score greater than 0.62 (willing to sacrifice ≥1 year to go home rather than to a NH), whereas 36% had a score of 0 or less (unwilling to sacrifice any amount of life to go home rather than to a NH) |
| Loh and Shapiro (2013) | Assess WTP for HCBS among HCBS enrollees or eligible applicants (WTP: CVM with CE and OE questions)  | Random sample of adults aged ≥60 years enrolled in (or eligible for) various HCBS programs in Florida, USA (n=409) | CATI (27%) | DS, MS (random effects logistic regression)  | MS: age, gender, ethnicity, functional status (limitations in ADL), household income, type of HCBS  | *MS (regression coefficients for the “probability of accepting an offered bid”):* bidding price (β = -0.001), Ethnicity (vs. Caucasian): Hispanic (β = -0.485), African American (β = -0.390), household income (vs. ≤$10.000): $10.001-$20.000 (β = 0.129), ≥$30.001 (β = 0.356), ADL count (β = 0.045), HCBS enrollee (vs. Community Care for the Elderly): Alzheimer Disease Initiative (β = 0.424);*MS (mean (median) “WTP” based on CE questions)*: Overall: $933.32 ($900.55), Household income (vs. ≤$10.000): $10.001-$20.000: $917.23 ($886.05), $20.001-$30.000: $1,032.67 ($1,008.72), ≥$30.001: $1,411.53 ($1,404.37), HCBS enrollee: Alzheimer Disease Initiative (AD): $1,776.61 ($1,774.01), Community Care for the Elderly (CCE): $905.03 ($870.83), Home Care for the Elderly (HCE): $1,024.68 ($1,002.11), Medicaid Waiver (MV): $1,000.06 ($973.38), Older Americans Act OA3B&3E: $927.14 ($896.60), Older Americans Act O3C2: $771.50 ($724.37); *MS (mean “WTP” based on OE questions):* Overall: $564.80, Income: <$10.000: $473.06, $10.001-$20.000: $640.15, $20.001-$30.000: $584.71, ≥$30.001: $732.50, HCBS enrollee: ADI: $1,058.80, CCE: $552.10, HCE: $623.40, MW: $623.80, OA3B&3E: $580.38, O3C2: $587.80 |
| Nieboer, Koolman and Stolk (2010)2 | Elicit preferences for LTC services across future beneficiaries (DCE: 10 attributes with 2-4 levels each) | GP: Stratified random sample (n=1082) of members of the Dutch Survey Sampling Internet panel aged 50-65 years (Netherlands)  | Online survey (28%)  | BS, MS (MNL) | Stratification: HHCS, income (high vs. low) | *MS (MNL derived marginal WTP for changes in the amount of LTC): Low/high income:* 4 hours additional care/week: €24/€36, half day of additional organized social activities: €36/€48, transportation service available: €113/€183, living situation (vs. living independently at home): apartment building: €61/€17 / sheltered accommodation: €47/€28 / NH: €42/€-55, regular care providers (vs. varying care providers): €101/€158, care according to individual preferences (vs. standardized care): €30/€61, coordinated service delivery (vs. coordination by care recipient): €71/€92, better punctuality (i.e. reduced by 1 hour): €22/€34, shorter time on waiting list (i.e. reduced by 4 month): €42/€62; *BS:* differences in marginal WTP between low and high income significant for NH;***HHCS: Physically frail (living alone)/(married)***: 4 hours additional care/week: €32/€21, half day of additional organized social activities: €60/€41, transportation service available: €120/€76, living situation (vs. living independently at home): sheltered accommodation: €35/n.s / NH: n.s./€-18, regular care providers (vs. varying care providers): €36/€49, care according to individual preferences (vs. standardized care): €30/€22, coordinated service delivery (vs. coordination by care recipient): €35/n.s., better punctuality (i.e. reduced by 1 hour): €25/€17, shorter time on waiting list (i.e. reduced by 4 month): €53/€34;***HHCS: Dementia (living alone)/(married)***: 4 hours additional care/week: €42/€26, half day of additional organized social activities: €81/€26, transportation service available: €88/€55, living situation: apartment building: €177/n.s. / sheltered accommodation: €64/n.s / NH: €72/n.s., regular care providers: €154/€88, coordinated service delivery: €154/€39, better punctuality: €44/€30, shorter time on waiting list: €104/€38 |
| Brau and Lippi Bruni (2008) | Detect the main determinants of LTC coverage and provide estimates for the WTP for alternative LTC coverage programs (DCE: 4 attributes with 2-5 levels each) | GP: random sample of adults aged ≥25 years in the Emilia-Romagna region in Italy (n=1176) | Structured F2F interviews (n.i.)  | MNL, MNP, Nested logit models | MS (nested logit): variety of variables from three groups: household characteristics, respondent characteristics, respondent opinions | ***HHCS:*** *MS (regression coefficients / MWTP from nested logit with main effects)*: financing scheme: 0 private, 1 public (β = 0.193 / €178), coverage for extra costs of residential care (β = 0.341 / €315), degree of coverage (β = 0.0120 / €11), yearly cost of coverage (β = -0.0011), alternative specific constant (β = -1.1536 / €-1067); public coverage with compulsory participation (financed via general taxation) preferred institutional solution, compared to a private LTC market solution with voluntary participation (financed via insurance premiums) with a MWTP of €178 (preferences for extending coverage of LTC risk heterogeneous: 23% of the sample always choose the “status quo” while the rest prefers greater coverage than what is currently ensured by public coverage in Italy); ***HHCS:*** *MS (regression coefficients for choice to extend coverage from nested logit with main effects; negative coefficients indicate a preference to extend coverage, comparted to the “status quo”)*: higher income (β = -0.0002), presence of young children (β = -0.2302), smaller family size (β = 0.1903), younger age (β = 0.0195), male gender (β = -0.1597), education (vs. no formal education): compulsory (β = -0.5778) / secondary (β = -0.6777), university (β = -1.1502), retired (β = -0.1988), disabled person in (enlarged) family (β = -0.2535), bad subjective health status (β = 0.3342), private health insurance (β = -0.4719), negative attitude towards quality of NHS in Italy (β = -0.1724), health care among first three priorities for new public health spending (β = -0.3229), state should cover only basic LTC services for everybody (β = -0.4730), state should pay basic LTC services for the poor (β = -0.1563)  |

*Note:* 1 This column indicates which types of statistics were used to generate findings, i.e. descriptive- (DS), univariate- (UV), bivariate- (BS), and multivariate- (MS) statistics, and the type of multivariate analyses (e.g. nested logit). Note that for some studies only findings from selected analyses are displayed. Further information on each study/reference can be found the manuscript. 2An example is provided as to how read table based on the study (Nieboer, Koolman and Stolk 2010). These authors conducted a DCE (=method) to elicit preferences for LTC services across future beneficiaries in the Netherlands (=aims), based on a stratified random sample of members of the Dutch Survey Sampling Internet panel aged 50-65 years (=population). Data were gathered via an online survey (=DCM); the response rate was 28% (=RR). Data was analyzed via MNL models (=DA); the sample stratified by income into low- and high income, respective differences tested were in bivariate analyses (=DA). Findings (presented as WTP) were presented for those with high and low incomes and separately presented for four HHCS, i.e. physically frail living with partner, physically frail living alone, dementia living with partner, dementia living alone (=PH). Respondents with high (low) income had a MWTP of €36 (€24) for 4 additional hours of care per week, of €183 (€113) for the availability of transportation services, and, compared to living independently at home, a MWTP of €17 (€61) for living in an apartment building, of €28 (€47) for sheltered accommodation, and of €-55 (€42) for NH, amongst others. Regarding the physically frail without (with) partner, MWTP was of €32 (€21) for 4 additional hours of care per week, €120 (€76) for the availability of transportation services, and, compared to living independently at home, €35 (n.s.) for sheltered accommodation, n.s. (€-18) for NH, amongst others. The findings for the HHCS displaying dementia without (with) partner are interpreted in the same manner. CDC = consumer directed care, CVM: contingent valuation method, BG = bidding game, CATI = computer-assisted telephone interview, CE = closed-ended (questions), DA = data analysis, DC = data collection, DCE = discrete choice experiment, DS = descriptive statistics, FG = focus groups, HCBS = home and community based services, HBTP = home based technology program (for a description of the content, see Additional File 2), HHCS = hypothetical health/care scenario, QOL = Quality of Life, LTC(P) = long-term care (preferences), MNL = multinomial logit, MNP = multinomial probit, n.i. = not indicated, n.s. = not significant, NHS = national health service(s), OE = open-ended (questions), PC = payment card, PH = preference heterogeneity, RR = response rate, SD = standard deviation, SE = standard error, US = univariate statistics, WTP = willingness to pay,