

Supplemental Table S1: Overview on the harmonization of the 21 potential risk factors of malnutrition. Categorization used in the original studies (vs. indicates which categories were summarized during harmonization) as well as categorization used in this secondary data analyses is given

	Community (KORA-Age)	Geriatric Day Hospital	Home Care (ErnSiPP)	Nursing Home	Harmonized variable
Demographics					
Living alone	Do you live alone? yes, no	Do you live alone? yes, no	With whom does the home care receiver live together? alone, with partner, with children, with partner and children, with other persons	-	Living alone, living with others
Health Status					
Polypharmacy	Number of prescribed drugs	Takes more than 3 prescription drugs per day yes, no	Number of prescribed drugs	Number of prescribed drugs	> 3 drugs vs. ≤ 3 drugs
Multimorbidity	Number chronic diseases	Number chronic diseases	Number chronic diseases	Number chronic diseases	≥ 2 diseases vs. < 2 diseases
Diabetes Mellitus	Diabetes Mellitus yes, no	Diabetes Mellitus yes, no	Diabetes Mellitus yes, no	Diabetes Mellitus yes, no	Yes vs. no
Heart Diseases	Myocardial infarction yes, no Heart complaint, heart diseases yes, no	Heart failure yes, no Other heart diseases yes, no	Heart failure yes, no Other heart diseases yes, no	Heart failure yes, no Other heart diseases yes, no	Yes vs. no
Stroke	Stroke yes, no	Stroke yes, no	Stroke yes, no	Stroke yes, no	Yes vs. no
Cancer	Cancer (last 3 years) yes, no	Cancer yes, no	Cancer yes, no	Cancer yes, no	Yes vs. no

	Community (KORA-Age)	Geriatric Day Hospital	Home Care (ErnSiPP)	Nursing Home	Harmonized variable
Respiratory Diseases	Asthma, Emphysema, Chronic Obstructive Disease yes, no	Respiratory Diseases yes, no	Respiratory Diseases yes, no	Respiratory Diseases yes, no	Yes vs. no
GI diseases	GI diseases yes, no	Gastritis, intestinal diseases yes, no Inflammatory Bowel disease yes, no	Gastritis, intestinal diseases yes, no Inflammatory Bowel disease yes, no	Gastritis, intestinal diseases yes, no Inflammatory Bowel disease yes, no	Yes vs. no
Renal diseases	Renal diseases yes, no	Renal diseases yes, no	Renal diseases yes, no	Renal diseases yes, no	Yes vs. no
Arthropathy	Arthritis, Rheumatism, Arthrosis yes, no	Arthropathy yes, no	Arthropathy yes, no	Arthropathy yes, no	Yes vs. no
Mental Function					
Cognitive Impairment	TICS-m \leq 31 points cognitive impairment	MMSE < 24 points cognitive impairment	MMSE < 24 points cognitive impairment	MMSE < 24 points cognitive impairment	cognitive impairment vs. no cognitive impairment
Depressive Symptoms	Geriatric Depression Scale	Geriatric Depression Scale	Geriatric Depression Scale	Geriatric Depression Scale	> 5 points depressive symptoms vs. \leq 5 points no depressive symptoms, not assessable
Physical Function					
Mobility Limitations	HAQ Mobility limitations Are you able to walk outside on flat ground? unable to do, with much	Barthel Index Mobility limitations Can't move at least 50 m, wheelchair bound, can move 50 m with support	Barthel Index Mobility Can't move at least 50 m, wheelchair bound, can move 50 m with support	Barthel Index Mobility Can't move at least 50 m, wheelchair bound, can move 50 m with support	yes vs. no

	Community (KORA-Age)	Geriatric Day Hospital	Home Care (ErnSiPP)	Nursing Home	Harmonized variable
	difficulty, with some difficulty vs. without any difficulty	vs. can move 50 m independently	vs. can move 50 m independently	vs. can move 50 m independently	
Difficulties with eating	HAQ Mobility limitations 1. Are you able to cut meat with a knife? 2. Are you able to lift a full glass to the mouth? unable to do, with much difficulty, with some difficulty vs. without any difficulty	Barthel Index Eating difficulties Completely dependent with eating, needs help with eating vs. eats independently	Barthel Index Eating difficulties Completely dependent with eating, needs help with eating vs. eats independently	Barthel Index Eating difficulties Completely dependent with eating, needs help with eating vs. eats independently	yes vs. no
Dietary Intake Related Problems					
Nausea	Nausea or stomach upset yes, no	Do you suffer from nausea? yes, no	Does the home care receiver suffer from nausea? Often, occasionally, infrequently vs. never	Does the resident suffer from nausea? yes, no	yes vs. no
Chewing problems	In the past month did you have difficulties with chewing of foods due to problems with teeth, oral problems or problems with dentures? yes, no	Do you have difficulties with chewing? yes, no	Does the home care receiver have difficulties with chewing? Yes vs. only with hard foods, no	Does the resident have difficulties with chewing? severe, moderate, slight vs. no	yes vs. no
Swallowing problems	Do you get cough, retch or pain during swallowing for foods or fluids?	Do you have swallowing difficulties? yes, no	Does the home care receiver have swallowing difficulties?	Does the resident have swallowing difficulties? severe, moderate, slight	yes vs. no

	Community (KORA-Age)	Geriatric Day Hospital	Home Care (ErnSiPP)	Nursing Home	Harmonized variable
	Often/almost always, occasionally, infrequently, never		yes, no	vs. no	
Poor appetite	How would you describe your appetite? poor, less good vs. good, very good	Do you suffer from poor appetite? yes, no	How would you describe the appetite of the home care receiver? poor, moderate vs. good, very good	Does the resident suffer from poor appetite? severely, moderately, slightly vs. no	yes vs. no
Dietary Behavior					
Low fruit/vegetable intake	How many serving of fruit, vegetables and salad do you usually per day? (SCREEN II) <2, 2, 3, 4, ≥ 5 servings	Consumes two or more servings of fruit or vegetables per day? (MNA) yes, no	Consumes two or more servings of fruit or vegetables per day? (MNA) yes, no	Consumes two or more servings of fruit or vegetables per day? (MNA) yes, no	<2 serving vs. ≥ 2 servings
Low fluid intake	How much do you drink usually per day? (SCREEN II) < 2 glasses, about 2 glasses, 3-4 glasses, 5-7 glasses, ≥ 8 glasses	How much fluid (water, juice, coffee, tea, milk ...) is consumed per day? (MNA) < 3 cups, 3-5 cups, > 5 cups	How much fluid (water, juice, coffee, tea, milk ...) is consumed per day? (MNA) < 3 cups, 3-5 cups, > 5 cups	How much fluid (water, juice, coffee, tea, milk ...) is consumed per day? (MNA) < 3 cups, 3-5 cups, > 5 cups	< 3 glasses vs. ≥ 3 glasses/cups

MMSE Mini Mental State Examination, TICS-m Telephone Interview for Cognitive Status-modified, HAQ Health Assessment Questionnaire, MNA Mini Nutritional Assessment