Patient and public preferences for better-coordinated care in Switzerland: development of a discrete choice experiment

Running heading: Preferences for better-coordinated care: development of a discrete choice experiment

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For journal: The Patient

Supplement.

Document 1. The full list of 33 attributes grouped in 8 concepts

Concept 1 : Data sharing

Identified characteristics	Not important 1	2	3	4	Highly important 5
1. Who has access to my data? (e.g., my general practitioner, all health care providers involved in my treatment, my insurance, person, etc.)	☐	☐	☐	☐	☐
2. What type of data is shared? (e.g., all of my medical records or only certain data)	☐	☐	☐	☐	☐
3. Who can update this data? (e.g., my general practitioner, all health care providers involved in my treatment, my insurance, person, etc.)	☐	☐	☐	☐	☐

Concept 2: Price features of the basic health insurance contract

Identified characteristics	Not important 1	2	3	4	Highly important 5
4. Basic monthly health insurance premium	☐	☐	☐	☐	☐
5. Amount of the deductible	☐	☐	☐	☐	☐
6. Amount of the co-payment (i.e., the amount the patient must pay once the deductible is met)	☐	☐	☐	☐	☐
7. Basic health insurance billing system : “tiers-garant” vs “tiers-payant”	☐	☐	☐	☐	☐

Concept 3: Non-price features of the basic health insurance contract

Identified characteristics	Not important 1	2	3	4	Highly important 5
8. Duration of basic health insurance contract (e.g. 1 year, 2 years, etc.)	☐	☐	☐	☐	☐
9. Cash rewards or bonuses (e.g. for not changing contracts)	☐	☐	☐	☐	☐
10. Option to choose between public and private insurance	☐	☐	☐	☐	☐

Concept 4: Benefits included in the mandatory basic insurance (LAMal)

Identified characteristics	Not important 1	2	3	4	Highly important 5
11. Psychological support and counseling	☐	☐	☐	☐	☐
12. Access to therapeutic education programs	☐	☐	☐	☐	☐
13. Annual check-up for the 50+	☐	☐	☐	☐	☐
14. Personalized coaching for chronic disease management	☐	☐	☐	☐	☐
15. Possibility to use alternative medicine	☐	☐	☐	☐	☐
16. Long-term care	☐	☐	☐	☐	☐
17. Dental care	☐	☐	☐	☐	☐
18. Consultation on chronic care medication management	☐	☐	☐	☐	☐

19. Non-reimbursement of basic package treatments, which were deemed ineffective or of little use by the authorities	☐	☐	☐	☐	☐

Concept 5: Choice of care providers

Identified characteristics	Not important 1	2	3	4	Highly important 5
20. Freedom of choice of health care providers	☐	☐	☐	☐	☐
21. Gatekeeping	☐	☐	☐	☐	☐

Concept 6: Quality and efficiency of care providers

Identified characteristics	Not important 1	2	3	4	Highly important 5
22. Prescription of generics as a priority	☐	☐	☐	☐	☐
23. Mandatory participation in quality circles	☐	☐	☐	☐	☐
24. Publicly available report on the quality of practice	☐	☐	☐	☐	☐

Concept 7: Continuity and coordination of care providers

Identified characteristics	Not important 1	2	3	4	Highly important 5
25. Person to contact in case of health problems (e.g. always the same doctor, nurse, medical assistant, pharmacist)	☐	☐	☐	☐	☐
26. System of reminders for patients between medical visits (e.g. for tests, treatments, visits)	☐	☐	☐	☐	☐
27. Specialists provide feedback to the referring GP after a treatment episode (and vice versa)	☐	☐	☐	☐	☐
28. A health care professional who is responsible for the communication and coordination of the various medical services required in the treatment of chronic diseases	☐	☐	☐	☐	☐
29. A health care provider other than the physician takes over certain consultations/aspects of care (nurse, medical assistant, etc.)	☐	☐	☐	☐	☐
30. How and when information about care protocols is communicated to patients (written / oral, ongoing / before treatment, etc.)	☐	☐	☐	☐	☐

Concept 8: Accounting for the patient needs

Identified characteristics	Not important 1	2	3	4	Highly important 5
31. Involvement of patients in decision-making related to their treatment and care protocols (Not at all / patient responsible for decision / physician responsible for decision / shared decision)	☐	☐	☐	☐	☐

32. A health care provider who is available if needed at night, on weekends, or during vacations of the referring physician	☐	☐	☐	☐	☐
33. Access to information about existing programs to help patients manage their illnesses	☐	☐	☐	☐	☐

Based on your previous responses, please indicate which characteristics are most and least important to you within each of the eight concepts (check two boxes per table: one for the most important characteristic, and one - for the least).

Concept 1 : Data sharing

Identified characteristics	The most important	The least important
1. Who has access to my data? (e.g., my general practitioner, all health care providers involved in my treatment, my insurance, person, etc.)	☐	☐
2. What type of data is shared? (e.g., all of my medical records or only certain data)	☐	☐
3. Who can update this data? (e.g., my general practitioner, all health care providers involved in my treatment, my insurance, person, etc.)	☐	☐

Concept 2: Price features of the basic health insurance contract

Identified characteristics	The most important	The least important
4. Basic monthly health insurance premium	☐	☐
5. Amount of the deductible	☐	☐
6. Amount of the co-payment (i.e., the amount the patient must pay once the deductible is met)	☐	☐
7. Basic health insurance billing system : “tiers-garant” vs “tiers-payant”	☐	☐

Concept 3: Non-price features of the basic health insurance contract

Identified characteristics	The most important	The least important
8. Duration of basic health insurance contract (e.g. 1 year, 2 years, etc.)	☐	☐
9. Cash rewards or bonuses (e.g. for not changing contracts)	☐	☐
10. Option to choose between public and private insurance	☐	☐

Concept 4: Benefits included in the mandatory basic insurance (LAMal)

Identified characteristics	The most important	The least important
11. Psychological support and counseling	☐	☐
12. Access to therapeutic education programs	☐	☐
13. Annual check-up for the 50+	☐	☐
14. Personalized coaching for chronic disease management	☐	☐
15. Possibility to use alternative medicine	☐	☐

16. Long-term care	☐	☐
17. Dental care	☐	☐
18. Consultation on chronic care medication management	☐	☐
19. Non-reimbursement of basic package treatments, which were deemed ineffective or of little use by the authorities	☐	☐

Concept 5: Choice of care providers

Identified characteristics	The most important	The least important
20. Freedom of choice of health care providers	☐	☐
21. Gatekeeping	☐	☐

Concept 6: Quality and efficiency of care providers

Identified characteristics	The most important	The least important
22. Prescription of generics as a priority	☐	☐
23. Mandatory participation in quality circles	☐	☐
24. Publicly available report on the quality of practice	☐	☐

Concept 7: Continuity and coordination of care providers

Identified characteristics	The most important	The least important
25. Person to contact in case of health problems (e.g. always the same doctor, nurse, medical assistant, pharmacist)	☐	☐
26. System of reminders for patients between medical visits (e.g. for tests, treatments, visits)	☐	☐
27. Specialists provide feedback to the referring GP after a treatment episode (and vice versa)	☐	☐
28. A health care professional who is responsible for the communication and coordination of the various medical services required in the treatment of chronic diseases	☐	☐
29. A health care provider other than the physician takes over certain consultations/aspects of care (nurse, medical assistant, etc.)	☐	☐
30. How and when information about care protocols is communicated to patients (written / oral, ongoing / before treatment, etc.)	☐	☐

Concept 8: Accounting for the patient needs

Identified characteristics	The most important	The least important
31. Involvement of patients in decision-making related to their treatment and care protocols (Not at all / patient responsible for decision / physician responsible for decision / shared decision)	☐	☐
32. A health care provider who is available if needed at night, on weekends, or during vacations of the referring physician	☐	☐

33. Access to information about existing programs to help patients manage their illnesses	☐	☐

Document 2. Background characteristics of the focus group participants

Characteristics	**N (%)**
Patients	11 (52%)
General population	10 (48%)
Age 50+	21 (100%)
-whereby identified age 70+	5 (24%)
Females	15 (71%)
Residing in French-speaking canton of Switzerland	21 (100%)
Total participants	21 (100%)

Document 3. Parameter estimates from MNL model.

Attribute		Coef.	Std. Err.	P-value
Which professionals have access to my DEP?	All health professionals (doctors and non-doctors) involved in my care as well as my health insurance (ref)			
	Family doctor only	0.925	0.129	0.000
	All the doctors involved in my care	1.102	0.117	0.000
	All health professionals (doctors and non-doctors) involved in my care	0.748	0.124	0.000
Who coordinates my care?	A referent (doctor or non-doctor) from my health insurance (ref)			
	No healthcare professional	0.357	0.112	0.001
	My family doctor	1.140	0.120	0.000
	A health professional who is not a doctor	0.521	0.110	0.000
	A healthcare team including several healthcare professionals (doctor and non-doctor)	0.823	0.111	0.000
Access to the specialist	Direct consultation possible if the specialist is on a list (limited choice) (ref)			
	Direct access possible (free choice)	0.230	0.112	0.039
	Need to be referred by a family doctor (gatekeeping)	0.274	0.103	0.008
What do insured with chronic illness pay?	Pay neither deductible nor co-payment (ref)			
	Pay both deductible and co-payment	-0.340	0.108	0.002
	Pay only co-payment	-0.079	0.118	0.502
	Pay only deductible	-0.029	0.110	0.794
Formal compensation for care and support for caregivers	No formal compensation (ref)			
	Formal compensation (yes)	-0.083	0.106	0.431
	Formal compensation and access to specific services	0.020	0.099	0.842

Change in my monthly basic health insurance premium	Premium remains the same(ref)			
	Premium -50	0.144	0.112	0.199
	Premium -100	-0.048	0.107	0.653
	Premium + 50	-0.229	0.104	0.028
	Premium +100	-0.883	0.100	0.000
McFadden Adjusted R-sq.		0.105		

Document 4. Background characteristics of the online pilot test sample

N total completes	301
Time to completion (minutes): mean, med, IQR	87.2, 15.5, 11.45-20.7
Time to completion (minutes) without 17 outliers with time >60 min: mean, med, IQR	16.5, 14.9, 11.2-19.2
Not passed stability task – forced, N (%)	61 (20%)
Not passed practice (somewhat dominance) task - forced, N (%)	55 (18%)
Only chose left or right alternative – all tasks, N (%)	24 (8%)
Age mean, med, min-max	63.6, 64, 50-89
Males, N (%)	172 (57.14%)
Education, N (%)	
Compulsory schooling	25(8.31%)
Apprenticeship	94 (31.23%)
High school diploma	37 (12.29%)
Professional diploma	60 (19.93%)
University, higher education	85 (28.24%)
Income, N (%)	
Less than 3,000 CHF	40 (13.29%)
3,000-5,000 CHF	76 (25.25%)
5,000-7,000 CHF	59 (19.6%)
7,000-9,000 CHF	35 (11.63%)
9,000-11,000 CHF	20 (6.64%)
11,000-13,000 CHF	11 (3.65%)
Over 13,000 CHF	13 (4.32%)
I do not know	6 (1.99%)
I do not want to answer	41 (13.62%)
Marital status, N (%)	
Single	42(13.95%)
Married/Registered partnership	172 (57.14%)
Separated	68 (22.59%)
Widower widow	19 (6.31%)
Living arrangement, N (%)	
Alone	95 (31.56%)
Single-parent family	10 (3.32%)
Couple without children	130 (43.19%)
In couple with child(ren)	59 (19.6%)
Other	7 (2.33%)
Professional status, N (%)	
Full time employee	50 (16.6%)
Part-time employee	38 (29.24%)
Self-employed	23 (7.64 %)
Unemployed	17 (5.65%)
Retirement	149 (49.5%)
Disability insurance (AI)	13 (4.32%)
At home to do household	8 (2.66%)
Other	3 (1%)
Occupation (where applicable), N (%)	114 (37.9%)
Laborer, worker	1 (0.88%)
Skilled worker	9 (7.89%)
Employee without training (e.g. office	5 (4.39%)
Qualified employee (secretary, accountant)	32 (28.07%)

Middle manager (technician, teacher)	23 (20.18%)
Independent from small business, artisan	11 (9.65%)
Senior manager	9 (7.89%)
Liberal profession (doctor, lawyer)	9 (7.89%)
Director, company or public service	5 (4.39%)
Other	10 (8.77%)
Health state, N (%)	
Very good	55 (18.27%)
Good	143 (47.51%)
Neither good nor bad	65 (21.59%)
Bad	32 (10.63%)
Very bad	6 (1.99%)
Disease, N (%)	
Hypertension	89 (29.57%)
High cholesterol	67 (22.26%)
Angina (Heart)	6 (1.99%)
Heart failure	15 (4.98%)
Stroke	2 (0.66%)
Diabetes	42 (13.95%)
COPD	14 (4.65%)
Osteoporosis	12 (3.99%)
Arthroses/arthritis	56 (18.6%)
Cancer	13 (4.32%)
Ulcer	4 (1.33%)
Colitis	2 (0.66%)
Depression	18 (5.98%)
Alzheimer/Parkinson	-
HIV	4 (1.33%)
No diseases	124 (41.2%)
1 disease	80 (26.58%)
2+ diseases [1]	97 (32.32%)
Number of diseases (among 2+): mean, med, min-max	2.7, 2, 2-6
Healthcare-related characteristics	
Insurance model, N (%)	
Ordinary insurance	121 (40.2%)
Alternative insurance, if so which one:	1
HMO	9 (2.99%)
Family doctor model	141 (46.84%)
Consultation by telephone beforehand	23 (7.64%)
Other	3 (1%)
I do not know	3 (1%)
Deductibles, N (%)	
300 CHF	165 (54.82%)
500 CHF	55 (18.27%)
1000 CHF	7 (2.33%)
1500 CHF	20 (6.64%)
2000 CHF	4 (1.33%)
2500 CHF	44 (14.62%)
I do not know	6 (1.99%)
Premium, N (%)	
Less than 200 CHF	5 (1.66%)
200-250 CHF	5 (1.66%)
250-300 CHF	19 (6.31%)
300-350 CHF	**38 (12.62%)**
350-400 CHF	**35 (11.63%)**
400-450 CHF	**66 (21.93%)**
450-500 CHF	**68 (22.59%)**
500-550 CHF	28 (9.3%)
550-600 CHF	16 (5.32%)
More than 600 CHF	9 (2.99%)
I do not know	12 (3.99%)
Insurance subsidy (yes), N (%)	93 (30.90%)

[1] Among those: hypertension 67, high cholesterol 55, angina 6, heart failure 14, stroke 2, diabetes 32, COPD 10, osteoporosis 7, arthritis 44, cancer 10, ulcer 2, depression 14, HIV 1

Complementary insurance (yes), N (%)	205 (68.11%)
Financial deprivation (gave up services due to financial reasons), N (%)	79 (26.25%)
Have generalist doctor, N (%)	287 (95.35%)
Times visited generalist doctor: mean, med, min-max	3.9, 2, 0-40
Have visited any doctor within 12 months, N (%)	259 (86.05%)
Times visited any other doctor: mean, med, min-max	3.2, 2, 0-27
Have been hospitalized within 12 months, N (%)	56 (18.6%)
Nights spent in a hospital: mean, med, min-max	10.4, 4, 0-89
Have been to the emergency department, N (%)	43 (14.29%)
Times been to the emergency department: mean, med, min-max	1.3, 1, 0-4
Been admitted to the nursing home within 12 months, N (%)	2 (0.66%)
Received informal care	57 (18.94%)
Yes	20 (6.64%)
Due to COVID	37 (12.29%)
No	244 (81.06%)
Frequency of receiving informal care	
Several times a week	13 (22.8%)
1 time per week	23 (40.35%)
Once every 2 weeks	11 (19.3%)
1 time per month	1 (1.75%)
Less than once a month	9 (15.79%)
Provided informal care	107 (35.55%)
Yes	66 (21.93%)
Due to COVID	41 (13.62%)
No	194 (64.45%)
Frequency of providing informal care	
Several times a week	34 (31.78%)
1 time per week	29 (27.10%)
Once every 2 weeks	20 (18.69%)
1 time per month	9 (8.41%)
Less than once a month	15 (14.02%)
Health literacy	
Confidence in the health insurance model chosen, N (%)	
Very confident	69 (22.92%)
Rather confident	151 (50.17%)
Neither confident nor not confident	64 (21.26%)
Rather not confident	13 (4.32%)
Not confident at all	4 (1.33%)
Difficulties in understanding written medical information, N (%)	
Never	140 (46.51%)
Sometimes	144 (47.84%)
Often	8 (2.66%)
Always	9 (2.99%)
Opinion about healthcare	
Healthcare system in Switzerland:	
Requires no reform	15 (4.98%)
Requires a small number of reforms	157 (52.16%)
Requires a lot of reform	68 (22.59%)
Requires radical reform	41 (13.62%)
Cannot choose	20 (6.64%)
Is it fair that the riches receive the best care?	
All fair	15 (4.98%)
Rather fair	20 (6.64%)
Neither fair nor unfair	47 (15.61%)
Rather unfair	59 (19.6%)
Completely unfair	152 (50.5%)
Cannot choose	8 (2.66%)
To what extent would you be willing to pay more taxes for better medical care for everyone in Switzerland?	
Completely ready	7 (2.33%)
Rather ready	48 (15.95%)
Neither ready, nor not ready	88 (29.24%)
Rather not ready	60 (19.93%)
Not ready at all	88 (29.24%)
Cannot choose	10 (3.32%)

Support or oppose the system with public basic health insurance, N (%)	
Very in favor	120 (39.87%)
Rather in favor	98 (32.56%)
Neither in favor nor opposed	47 (15.61%)
Rather opposed	17 (5.65%)
Very opposed	11 (3.65%)
Cannot choose	8 (2.66%)
Long questionnaire (Disagree/Strongly disagree), N (%)	204 (67.8%)
Difficult questions (Disagree/Strongly disagree), N (%)	151 (50%)
Inappropriate instructions (Disagree/Strongly disagree), N (%)	232 (77%)

Document 5. All 33 attributes with their ranks and average scores based on the responses of the stakeholders in the online tasks before the meeting

Rank	**Attribute**	Average score**
1	Who has access to my data? (e.g., my general practitioner, all health care providers involved in my treatment, my insurance, person, etc.)	4.86
1	Long-term care	4.86
1	A health care provider other than the physician takes over certain consultations/aspects of care (nurse, medical assistant, etc.)	4.86
1	Involvement of patients in decision-making related to their treatment and care protocols (Not at all / patient responsible for decision / physician responsible for decision / shared decision)	4.86
5	Specialists provide feedback to the referring GP after a treatment episode (and vice versa)	4.71
5	A health care professional who is responsible for the communication and coordination of the various medical services required in the treatment of chronic diseases	4.71
7	Person to contact in case of health problems (e.g. always the same doctor, nurse, medical assistant, pharmacist)	4.64
8	What type of data is shared? (e.g., all of my medical records or only certain data)	4.57
9	Personalized coaching for chronic disease management	4.43
10	Who can update this data? (e.g., my general practitioner, all health care providers involved in my treatment, my insurance, person, etc.)	4.29
10	Basic health insurance billing system : “tiers-garant” vs “tiers-payant”	4.29
10	Psychological support and counseling	4.29
10	Access to therapeutic education programs	4.29
10	System of reminders for patients between medical visits (e.g. for tests, treatments, visits)	4.29
15	How and when information about care protocols is communicated to patients (written / oral, ongoing / before treatment, etc.)	4.14
15	A health care provider who is available if needed at night, on weekends, or during vacations of the referring physician	4.14
17	Consultation on chronic care medication management	4.00
17	Prescription of generics as a priority	4.00
17	Access to information about existing programs to help patients manage their illnesses	4.00
20	Basic monthly health insurance premium	3.86

21	Amount of the co-payment (i.e., the amount the patient must pay once the deductible is met)	3.71
21	Publicly available report on the quality of practice	3.71
23	Amount of the deductible	3.57
23	Possibility to use alternative medicine	3.57
23	Gatekeeping	3.57
23	Mandatory participation in quality circles	3.57
27	Option to choose between public and private insurance	3.43
28	Duration of basic health insurance contract (e.g. 1 year, 2 years, etc.)	3.14
28	Dental care	3.14
28	Freedom of choice of health care providers	3.14
31	Annual check-up for the 50+	3.00
32	Cash rewards or bonuses (e.g. for not changing contracts)	2.43
33	Non-reimbursement of basic package treatments, which were deemed ineffective or of little use by the authorities	2.29

****the score is calculated as arithmetic mean of attribute ratings, according to the importance scale 1-5, performed by all 7 stakeholders**