

APPENDIX: The bivariate associations

This Appendix file contains three parts, A, B, and C.

A. Bivariate frequency distribution of the data acquiring method and the user profile data type

To understand the association between the data acquiring method and the user profile characteristic, a bivariate frequency distribution has been calculated. As both variables were categorical, the Crosstab and chi-square analysis were used to describe the relationship. IBM SPSS statistics 24 was used for this purpose.

The crosstabs parameters were set so that the row consisted two variables (T1 and T2) for the data acquiring method and the column consisted four variables (D1 to D4) for the user profile data type. For each pairing of the row variables with the column variables, SPSS provides a crosstab. eight crosstabs were created.

In each crosstab table the categories of user profile characteristics determine the rows of the table, and the categories of the data collection/source variable determine the columns. The cells of the table contain the number of times that a particular combination of categories occurred.

Each category of the data collection variable can collect data for several types of user characteristics. Likewise, multiple data collection methods can be used to collect data of a single user characteristic. The following table is an aggregate of the eight crosstab tables. Corresponding cells from each crosstab table added together for the final analysis.

	Questionnaire	Diary	Device (Sensor)	Record (EHR)
Socio-demographic	171	6	3	27
Health/Medical History	42	1	4	7
Health/Medical state	212	47	34	48
Psycho behavioral determinants	136	6	2	6
Knowledge level	6	0	0	0
History of interactions	3	0	0	0

B. The co-occurrence matrix between categories of the information type in content library

The co-occurrence matrix shows the number and percentage of each information type that is used in conjunction with other types of information. As indicated in the table, in most articles (n=55, 16%), feedback and advice are used together.

Fact	Fact			
Feedback	12(3%)	Feedback		
Advice	39 (11%)	64 (18%)	Advice	
Plan	1	10 (3%)	6 (2%)	Plan

C. The co-occurrence matrix between categories of the delivery channel

The value 5 for the intersection of the web and the printout means that in five papers that has provided the information through the web, they used print as a second method of information delivery to compare the effectiveness of two methods. As you can see in the table, most comparisons have been conducted between web-email (n=5) and web-print (n=5). The large number

of zero values in the table indicates the study gaps for comparing the effects of the corresponding channels.

CD	CD							
E-mail	1	E-mail						
Mobile app	0	0	Mobile app					
On screen	0	0	0	On screen				
Printout	2	1	0	2	Printout			
SMS	0	4	2	0	0	SMS		
Web	2	5	1	0	6	1	Web	