Additional file 1. A summary of articles on feasibility analysis

Author, Year of publication	Study design	Purpose	Participants	Principal findings	Limitations
Thiel, D.B. et al., 2015 [1]	Pilot test	to evaluate user experiences with an online portal for DC in biobank research	a total of 187 pilot testers (Michigan citizens and University of Michigan students)	● over 50% of participants were willing to use and recommend the tested portal if it went live ● concerns were raised about the identity verification procedure	not representative of the general population since the pilot testing sample was a convenience sample
Tears, H.J. et al., 2015 [2]	Focus group interview	to investigate the viewpoints of biobank participants regarding the web-based DC interface	a total of 32 biobank participants (three biobanks governed by NHS Hospital Trust	● positive to track consent history, receive additional information about research progress, and specify the frequency and method of receiving additional information	a preliminary local study with a small sample size, and demographic considerations were not considered when selecting participants
Spencer, K. er al., 2016 [3]	Focus group interview	to assess patient impressions of the continuous communication between data subjects and consumers in a DC system	a total of 40 participants (35 patients with rheumatic disease and 5 from a public involvement health research network)	● overall, 98% of participants believed that the benefits of utilizing personal health data with dynamic consent outweighed the drawbacks ● concerns about the negative repercussions of sensitive data falling into the wrong hands	undertaken on a select population of individuals with chronic rheumatic disease and with little consideration for generalizability
Budin-Ljøsne et al., 2017 [4]	Interdisciplinary workshop	to explore whether DC can aid participant recruitment and contact maintenance	Diverse DC stakeholders (organized by the University of Oxford & COST Action CHIP ME)	● DC brings pragmatic solutions to consent management issues ● a competent workforce is required for the implementation and maintenance of a DC system	not mentioned
Despotou, G. et al., 2020 [5]	Focus group interview & questionnaire	to assess how patients perceive blockchain-based digital consent applications in the context of diabetes care	a total of 36 participants (23 patients with diabetes and 13 staff in the practice)	● lacked awareness of existing consent processes and could not recall previously providing consent ● received positive feedback, with patients acknowledging the utility of the digital consent application	participants were recruited from a local general practitioner's practice

Pacyna, J.E. et al., 2020 [6]	Survey	to evaluate the stability of the donor preferences specified during biobank enrollment	a total of 1,164 participants (Mayo Clinic biobank)	● overall, 94% of participants initially restricted sample availability when they enrolled in the biobank, but they were later comfortable with wider sample availability ● participants need to be able to contact the biobank at any time to update their preferences regarding the use of their donated human-derived materials	inappropriate to generalize results to other populations or research settings
Wallace, S.E., and Miloa, J., 2021 [7]	Focus group interview	to investigate the opinions of existing study participants regarding the addition of a DC interface	four focus groups, each comprising 3-6 people (EXCEED longitudinal cohort study)	● positive regarding the ability to update and revoke consent	few participants with a favorable bias toward the study

DC=Dynamic consent

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