

Appendix A

Systematic Search Strategy

The methodology for the search was designed based on standards for systematic reviews [32], in consultation with a medical librarian, as well as with two experts from the field of healthcare behavioral economics. The databases used were: EconLit, Embase, EBSCO Megafire, PsycINFO, PubMed, Scopus, and Web of Science.

Search terms included combinations, plurals, and various conjugations of the words relating to identified nudge strategies. The search string and strategy from [6] was used as a basis for search terms, but adjusted to reflect the more specific clinician-directed aim of this research question. All peer-reviewed empirical studies published prior to the completion of our search phase (i.e., – 4/2020) were eligible for this review.

Following retrieval of all records, duplicates were removed using Zotero (www.zotero.org), and via manual inspection. Article screening involved two stages. First, all records were screened at the title and abstract level by a team of four coders (the first-author and three research assistants) using the web-based application for systematic reviews, Rayyan (<https://rayyan.qcri.org>). Criteria in this first-pass screening were more inclusive—that is, all interventions directed at clinicians were included and examined further. To establish reliability, the first-author and the three coders screened the same 20 articles and then reviewed their screening decisions together. Any disagreements were resolved by consensus. This process was repeated three additional times until 80 articles were screened by all four coders and sufficient reliability was established. Reliability was excellent (fleiss' $\kappa = 0.96$). For the remainder of the screening process, screening was done independently by all four coders; the team met weekly to discuss any articles that they were uncertain about including or excluding. This screening process

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was followed by a full text examination to finally determine inclusion or exclusion according to more stringent inclusion and exclusion criteria (see Table 1). This screening process was done as a team and determinations of article inclusion were decided collaboratively.

Search Terms

The following search terms were used in the systematic search. All searches were conducted in the title field.

EBSCO Megafile

TI (nudg* OR choice architect OR choice architecture OR behavioral intervention OR behavioural intervention OR behavioral economic OR behavioral economics OR behavioral insight OR behavioural insight OR active choice OR default OR default bias OR default option OR opt-out OR opt-in OR prompted choice OR commitment device OR accountable justification OR peer comparison OR pre-commitment) AND TI (physician OR health OR clinician OR clinic OR provider* OR electronic health record OR health record OR doctor OR nurse OR physician assistant OR medical assistant OR electronic medical record OR medical record OR medical OR outpatient OR inpatient OR hospital OR resident)

EconLit

TI (nudg* or choice architect or choice architecture or behavioral intervention or behavioural intervention or behavioral economic or behavioral economics or behavioral insight or behavioural insight or active choice or default or default bias or default option or opt-out or opt-in or prompted choice or commitment device or accountable justification or peer comparison or pre-commitment) AND TI (physician or health or clinician or clinic or provider* or electronic health record or health record or doctor or nurse or physician assistant or medical assistant or

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electronic medical record or medical record or medical or outpatient or inpatient or hospital or resident)

Embase

(nudg* or choice architect or choice architecture or behavioral intervention or behavioural intervention or behavioral economic or behavioral economics or behavioral insight or behavioural insight or active choice or default or default bias or default option or opt-out or opt-in or prompted choice or commitment device or accountable justification or peer comparison or pre-commitment) AND (physician or health or clinician or clinic or provider* or electronic health record or health record or doctor or nurse or physician assistant or medical assistant or electronic medical record or medical record or medical or outpatient or inpatient or hospital or resident)

PsycInfo

TI (nudg* or choice architect or choice architecture or behavioral intervention or behavioural intervention or behavioral economic or behavioral economics or behavioral insight or behavioural insight or active choice or default or default bias or default option or opt-out or opt-in or prompted choice or commitment device or accountable justification or peer comparison or pre-commitment) AND TI (physician or health or clinician or clinic or provider* or electronic health record or health record or doctor or nurse or physician assistant or medical assistant or electronic medical record or medical record or medical or outpatient or inpatient or hospital or resident)

PubMed

TI (nudg* OR choice architect OR choice architecture OR behavioral intervention OR behavioural intervention OR behavioral economic OR behavioral economics OR behavioral

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insight OR behavioural insight OR active choice OR default OR default bias OR default option OR opt-out OR opt-in OR prompted choice OR commitment device OR accountable justification OR peer comparison OR pre-commitment) AND TI(physician OR health OR clinician OR clinic OR provider* OR electronic health record OR health record OR doctor OR nurse OR physician assistant OR medical assistant OR electronic medical record OR medical record OR medical OR outpatient OR inpatient OR hospital OR resident)

Scopus

TI (nudg* or choice architect or choice architecture or behavioral intervention or behavioural intervention or behavioral economic or behavioral economics or behavioral insight or behavioural insight or active choice or default or default bias or default option or opt-out or opt-in or prompted choice or commitment device or accountable justification or peer comparison or pre-commitment) AND (physician or health or clinician or clinic or provider* or electronic health record or health record or doctor or nurse or physician assistant or medical assistant or electronic medical record or medical record or medical or outpatient or inpatient or hospital or resident)

Web of Science

TI (nudg* or choice architect or choice architecture or behavioral intervention or behavioural intervention or behavioral economic or behavioral economics or behavioral insight or behavioural insight or active choice or default or default bias or default option or opt-out or opt-in or prompted choice or commitment device or accountable justification or peer comparison or pre-commitment) AND (physician or health or clinician or clinic or provider* or electronic health record or health record or doctor or nurse or physician assistant or medical assistant or

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electronic medical record or medical record or medical or outpatient or inpatient or hospital or resident)

Table A1. Search Dates and Yields

Database	Date	Yield
EBSCO Megafire	4/22/2020	482
EconLit	4/22/2020	28
Embase	4/22/2020	1,240
PsycInfo	4/22/2020	384
PubMed	4/22/2020	292
Scopus	4/22/2020	30
Web of Science	4/22/2020	1,130
Total		3,586