CHEST Online Supplement

How Health-Care Organizations Implement Shared Decision-making When It Is Required for Reimbursement

The Case of Lung Cancer Screening

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e-Appendix 1. Interview guide

Part I: Intervention characteristics

1. Would you please describe how SDM for lung cancer-screening is done in your organization? Has this changed with time? How?
    a. Is it a centralized or decentralist process? Is it the same across the health system or does it vary? If it is decentralized, can you tell me about any variation that exists?
    b. What are the main advantages and disadvantages of your program?
    c. How does the workflow work? From patient identification to determining what to do with results and follow up?
        i. When and how do you communicate SDM process with patients? Before of after CT?
        ii. Where were the patients referred from and by whom? Any specific clinic or team?
        iii. Is there a specific decision aid or other educational material that you are using?
        iv. Do you use some sort of template charting for documentation?
        v. Do you have a lung nodule tracking program? Use something else to monitor follow up?
    d. Is your SDM process for lung cancer screening multidisciplinary? Primarily housed within one group/team?
    e. How do you monitor the implementation of SDM? How do you check if your SDM is implementing as you just described?
    f. Who are the core members of your organization's SDM for lung cancer screening process/program? How are nurses involved? How are tobacco treatment specialist? Are there other staff dedicated to the program?
    g. Which patients does your health system include in its SDM process? All patients, only Medicare patients? Something else?
2. Does your health system have a smoking cessation program? How is it related to the SDM program for lung cancer screening?

Part II: Inner setting

1. What kinds of operational changes or alterations did your health system undertake for SDM for lung cancer screening to work effectively in your setting?
    a. Changes in information systems or electronic records systems?
2. What resources did you receive, or would have liked to receive?
3. What challenges did you encounter? How did you overcome those challenges?

Part III: Outer setting

1. How 2015 CMS policy requirements changed your SDM for LCS process? How do you modify or change your SDM because of that?

Part IV: Process

1. How did your health system decide how to implement SDM for lung cancer screening? What different approaches to SDM did you consider? Who were the key decision makers?
    a. What kind of information or evidence did your health system collect or consider when deciding?
    b. Who originally advocated for the program / approach? What was their role?
    c. Was the same person/people who served as the advocate/s for the program / approach the ones responsible for implementing the program?
    d. Were they formally appointed in this position, or was it an informal role?
    e. What position do these advocates have in your health system?

e-Table 1. Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist[1]

No. Item	Guide questions/description	Reported on Page #
Domain 1: Research team and reflexivity		
Personal Characteristics		
1. Interviewer/ facilitator	Which author/s conducted the interview or focus group?	AAT
2. Credentials	What were the researcher's credentials? E.g. PhD,	MD, PhD, MPH
3. Occupation	What was their occupation at the time of the study?	Postdoctoral research fellow
4. Gender	Was the researcher male or female?	Male
5. Experience and training	What experience or training did the researcher have?	In addition to PhD in health service research he has considerable qualitative research and interviewing experiences.
Relationship with participants		
6. Relationship established	Was a relationship established prior to study commencement?	Yes
7. Participant knowledge of the interviewer	What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Participants knew the research objectives, how the authors will protect the data, how the authors will use the data, and absence of any conflict of interest. They also know that all results will be reported in aggregate and not attributed to them or their health system.
8. Interviewer characteristics	What characteristics were reported about the inter viewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	We report that interviews were conducted by one, clinician scientist (AAT) on page 16 where study limitations are described.
Domain 2: study design		
Theoretical framework		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis	We used an interview guide using the theory-based domains and constructs within the Consolidated Framework for Implementation Research (CFIR). Using this framework, we selected four domains (i.e., intervention characteristics, inner setting, outer setting, and process) and 10 constructs (relative advantage,

		adaptability, cost, external policies & incentives, structural characteristics, available resources, access to knowledge & information, planning, opinion leaders, and reflecting & evaluating) that most aligned with our research aims. Page 6-7
Participant selection		
10. Sampling	How were participants selected? e.g. purposive, convenience, consecutive, snowball	We used a snowball sampling technique to identify key informants: we asked initial study respondents to refer us to additional potential participants. We attempted to identify and interview only individuals directly involved with implementing an LCS-SDM program (e.g., founding program directors/coordinators). We contacted 47 people of whom 34 agreed to participate or referred us to another participant they felt more qualified to discuss the organization's LCS-SDM program. Four referents refused to be interviewed. In instances when the individual directly involved with program implementation had left the organization (n=10), we interviewed the person currently responsible for LCS-SDM program management. In seven instances, we interviewed a second person within the same organization as the initial organizational respondent referred us to a second individual within the same organization because they thought that second individual could provide supplemental information regarding the background and key determinants of their organization's LCS-SDM program. We recruited

		participants until data saturation was achieved. Page 6-7
11. Method of approach	How were participants approached? e.g. face-to-face, telephone, mail, email	Email, page 6
12. Sample size	How many participants were in the study?	30, page 7
13. Non-participation	How many people refused to participate or dropped out? Reasons?	13 people did not respond to invitation emails. Four people refused to participate because they were not directly involve with implementation of SDM for LCS. Page 6
Setting		
14. Setting of data collection	Where was the data collected? e.g. home, clinic, workplace	All data were collected via telephone interviews
15. Presence of non-participants	Was anyone else present besides the participants and researchers?	no
16. Description of sample	What are the important characteristics of the sample? e.g. demographic data, date	We interviewed only individuals directly involved with implementing an LCS-SDM program (e.g., founding program directors/coordinators). We interviewed 30 key informants directly involved with implementing and/or managing SDM for LCS in their organization from 23 healthcare organizations represents 12 states and the four US Census regions. We did not ask informants for information about themselves beyond their training. Page 6-7
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Yes, we used a semi-structured interview guide, and conducted two pilot interviews to ensure clarity and minimize interview length and repetitiveness. Page 7
18. Repeat interviews	Were repeat interviews carried out? If yes, how many?	No
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	Yes, Page 7
20. Field notes	Were field notes made during and/or after the inter view or focus group?	Yes, Page 7
21. Duration	What was the duration of the inter views or focus group?	Between 25-50 minutes
22. Data saturation	Was data saturation discussed?	Yes, Page 6
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	No

Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	2 (AAT, KT), Page 7
25. Description of the coding tree	Did authors provide a description of the coding tree?	Yes, page 6 and 7
26. Derivation of themes	Were themes identified in advance or derived from the data?	Two coders (AAT, KT) developed a preliminary codebook and themes using an available CFIR project template. They also developed additional codes as new themes emerged. Page 7
27. Software	What software, if applicable, was used to manage the data?	Dedoose, version 8.1.8. Page 7
28. Participant checking	Did participants provide feedback on the findings?	Yes, three respondents provided feedback on findings
Reporting		
29. Quotations presented	Were participant quotations presented to illustrate the themes/findings? Was each quotation identified? e.g. participant number	Yes, Tables 1, 2 and 3
30. Data and findings consistent	Was there consistency between the data presented and the findings?	Yes, as illustrated by the consistency between text within the Results section and the illustrative quotes, there was consistency between the data presented and the findings.
31. Clarity of major themes	Were major themes clearly presented in the findings?	Yes. they were. From page 8 to 13
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Discussion of major and minor themes From page 8 to 13

1- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International Journal for Quality in Health Care*. 2007. Volume 19, Number 6: pp. 349 – 357