

Supplementary Appendix 1: Interview questions at baseline, midline and endline**Safe Surgery 2020 – Tanzania****Baseline questions****Background**

1. What is your position at the hospital/health center?

Prompts

- a. How long have you been with the hospital/health center?
- b. What are your main responsibilities at this hospital/health center?

Vision for surgery

2. What is your vision for surgical services at your hospital/health center?

Prompts

- a. How would you like to see surgical services improve at your hospital/health center?
- b. How might these improvements affect surgical outcomes?
- c. Is surgery a high priority at your hospital/health center? Why or why not?
3. Tell us what it is like to work in this hospital in general. How would you characterize the organizational culture, the way people interact, what it feels like to be in this facility?

Safe Surgery 2020 initiative

4. Can you tell me what you know about the Safe Surgery 2020 project? (if nothing – explain).
5. In your opinion, how do you see this initiative affecting your surgical services here?
6. What is your facility's plan for implementing the Safe Surgery 2020 interventions at your hospital/health center? (When will you start, how will the work be organized? Who will be involved?)
7. Which factors do you feel will be most helpful in your surgical team's efforts to improve the quality of surgical services in your facility?
8. Which factors do you feel might hinder your surgical team's efforts to improve the quality of surgical services in your facility?

Quality improvement projects

9. I would like to ask you about the quality improvement project(s) that you and your team have chosen to work on as part of the leadership course you participated in.
 - a. Can you describe the quality improvement project(s) you selected to work on?
 - b. How were these quality improvement projects identified?
 - c. What outcomes are you hoping to achieve through the quality improvement projects?
 - d. Is there commitment within the hospital/health center for this work?

Prompts

- i. Is the leadership (CEO, Medical Director) committed to this work?
- ii. Who on the surgical team is committed? How motivated are they to make the changes required?
- iii. Do you have a champion to lead this work?
- e. How will you approach your work (structure, who will be involved, how will you go about your work)?
- f. What are the factors that will help facilitate the success of your work?
- g. What challenges do you anticipate? How are you planning to address these challenges?

Surgical Safety Checklist

10. As part of the SS2020 initiative, your hospital/health center will be implementing the SSC. What are your thoughts on how the SSC will affect surgery in your hospital/health center?
 - a. How do you think the SSC will affect how surgery is performed by the surgical team?
 - b. Can you describe how you think the SSC will affect the outcomes of surgery?
11. How committed is the leadership and surgical team to implementing the checklist?
12. What will be your approach to implementing the SSC?
13. What do you think are factors that will facilitate the implementation of the SSC in your hospital/health center?
14. What challenges do you anticipate in successfully implementing the SSC?
15. What would make the implementation of the SSC a success at your facility?

Mentoring

16. In your own words, can you describe what the mentoring intervention is and how it is structured?
 - a. In what ways is mentoring different from traditional supervision?
17. What areas of mentoring would help strengthen surgical services at your facility?
18. What current barriers or challenges could mentors help surgical staff overcome?
19. What are your expectations of your mentors? The mentor program?

Prompts

- a. Clinical mentoring expectations
- b. Mentor-mentee relationship expectations
- c. Communication expectations

Data Quality Improvement

20. Can you describe what the data quality improvement intervention is?
21. How has your understanding about the importance of accurate, complete and timely data for surgical services changed since the training?
22. What are your plans for strengthening data collection and reporting at your facility for SSIs/sepsis and for referrals out?
23. Do you feel supported by your hospital leadership in these improvement interventions? How?
24. What will be the most helpful to your accomplishments (e.g., training, resources provided by the project, cultural changes, learning orientation, operational changes)?
25. What will be the most challenging aspects of your efforts to strengthen data collection and reporting at your facility? How will you get around these challenges?

Leadership and Development training

26. Did the surgical team participate in the leadership training? What were your most important takeaways from the training?
27. In what ways do you think the leadership training will influence your facility?
28. What are your next steps following the leadership training?

SPECT and Anesthesia

29. How important is equipment sterilization in creating an environment for safe surgery?

- a. What kinds of processes do you currently use to sterilize equipment?
 - b. Are there ways in which your sterilization processes could be improved?
30. What barriers do you have in providing safe anesthesia?
- c. Are there ways in which your current anesthesia practices could be improved?

Closing

31. What is the most important message you want us to take away from this interview?
32. Is there any other subject or topic you think we need to discuss to better understand how to successfully implement the Safe Surgery 2020 initiative in your facility?

Thank you for your time and participation in this interview

Safe Surgery 2020 – Tanzania

Midline Interview Questions

Background

1. What is your position at the hospital/health center? How long have you been with the hospital/health center?

Safe Surgery 2020

1. What are your priorities for improving surgery at your facility?
2. How is the suite of safe surgery interventions helping you to achieve these priorities?
 - a. Are there aspects or components of this initiative that seem more or less beneficial to your facility than you thought/hoped?
3. What impact has the Safe Surgery 2020 project had on your hospital?
 - a. Are there things you are doing differently now than you were before you started the project?
 - b. What has been the impact on providers, if any?
 - c. What has been the impact on patients, if any?

Quality Improvement Project

4. I would like to ask you about the quality improvement project that you and your team chose to work on as part of the leadership course you participated in. Can you describe the project(s) you chose?
5. What outcomes are you hoping to achieve through the project?
6. Tell us about the work you have done over the past year on your quality improvement project to improve [outcome].
 - a. How was the work organized?
 - b. Who is involved (To what extent has the project engaged the surgical team and other physicians and staff at the hospital? How have project mentors been involved?)
 - c. What specific activities are ongoing or have been completed as a result of the project?

- d. What kinds of changes do you believe are still required for you to achieve your outcome?
7. What has been most helpful to your accomplishments (e.g. leadership support, surgical team buy-in, training provided, perceived importance/relevance of project, accountability & feedback mechanisms, resources provided by the project, cultural changes, learning orientation, etc.)
8. What have been the most challenging aspects of your efforts to improve [outcome]? (e.g. lack of leadership support, lack of buy-in, provider resistance to change, low relevance, lack of customization of intervention to local context, lack of culture for change, skepticism about the benefits of the project, lack of accountability, infrastructure challenges, etc.)

Surgical Safety Checklist

9. The last time we spoke, we discussed the Surgical Safety Checklist. What have you done to date towards implementing the checklist?
 - a. How did you go about its implementation?
 - b. How has checklist usage worked so far?
 - c. How have your practices changed as a result of this initiative?
 - d. What are the factors that have facilitated implementation of the surgical safety checklist in your facility?
 - e. What are the biggest obstacles you have faced? How did you address them?

Interventions

Leadership training

10. Do you feel that you learned any lasting lessons from the leadership training? If so, what were they?
11. What are some of the changes you've seen/implemented as a result of this training?

Mentorship

12. What are the areas that you have received support in so far? Of the areas of mentoring discussed, which would you say are the most and least valuable and why?
13. In what ways do you think the mentoring program will contribute to the strengthening surgical and anesthetic services? (e.g. facility benefits, provider skill benefits)
14. What changes have been made as a result of the mentoring program? (e.g. changes in your professional practice, changes at the facility level)
15. Can you describe your overall experience with the mentorship program?
 - a. General attitude around adopting the mentoring program in your facility
 - b. Relationship and communication with mentor
 - c. Characteristics and traits of mentor

Data strengthening intervention

16. What actions, if any, have you taken to improve data collection and record keeping? If no, why not?
17. From your perspective, how has the new OR logbooks, which were added earlier this year, affected data collection for surgical patients? What are the advantages and disadvantages of the way you are currently collecting data for surgical patients?
18. What challenges, if any, are you facing in implementing the recommendations provided at the clinical training session or during mentorship for collecting and using data at your facility? How are you addressing them?
19. What support, if any, are you receiving from leadership to improve data collection and record keeping?

SPECT training

20. How have your sterilization practices changed as a result of sterilization training?

WFSA training

21. How have your anesthesia practices changed as a result anesthesia training?

Facilitators/barriers

22. What has been most helpful to your accomplishments (e.g., resources provided by the project, leadership training, cultural changes, learning orientation, operational changes)?

23. What have been the most challenging aspects of your efforts to strengthen surgical services at your hospital/health center? Given the barriers that you faced, why do you think you were successful?

24. What are the most important lessons we can learn about successfully implementing surgical strengthening initiatives? If you were giving advice to another hospital in another region, what would you tell them?

Thank you for your time and participation in this interview.

Safe Surgery 2020 – Tanzania

Endline Interview Questions

Background

33. What is your position at the hospital/health center?

Prompts

- a. How long have you been with the hospital/health center?
- b. What are your main responsibilities at this hospital/health center?

Safe Surgery 2020

34. When we spoke at the beginning, you described your vision for surgery.
- a. How much progress have you made to achieving that vision?
 - b. Has the Safe Surgery initiative helped you in achieving that vision? If yes, how?
 - c. Are there aspects or components of Safe Surgery 2020 that seem more or less beneficial to your facility than you thought/hoped?

Quality Improvement Project

35. I would like to ask you about the quality improvement project that you and your team chose to work on as part of the leadership course you participated in.
- a. What outcomes are you trying to achieve through the project?
 - b. What specific activities are ongoing or have been completed?
 - a. How would you assess your progress to date relative to where you thought you might be when you began your project?
 - b. What kinds of changes do you believe are still required for you to achieve your outcome?
 - c. Which of these do you intend to undertake in the near term?
36. What has been most helpful to your accomplishments (e.g., resources provided by the project, leadership training, cultural changes, learning orientation, operational changes)?

37. What have been the most challenging aspects of your efforts to improve [outcome]? The most surprising?

38. Do you feel supported by your hospital leadership in these improvement interventions?

Surgical Safety Checklist

39. How is the implementation of the checklist going today?

40. What do you think are the factors that have facilitated implementation of the surgical safety checklist in your hospital/health center? (e.g. education, training, leadership support, SSC champion, data feedback, tailoring of SSC, coaching, etc.)

41. What were the biggest obstacles you faced in implementing the checklist? (E.g. lack of medical drugs, supplies or equipment, checklist barriers (E.g. lack of medical drugs, supplies or equipment, checklist barriers (design issues, items not appropriate for Tz context, etc.), lack of leadership support, lack of provider buy-in, approach to implementation, lack of education and training, etc.)

42. Given the barriers you faced, why do you think you were successful?

43. If you could improve checklist use, what would you try to improve?

44. In comparison to before implementation of the checklist, how would you describe your safety practices in the operating room? What about teamwork?

45. If you were coaching another hospital/health center about surgical safety checklist implementation, what are the key things that you would recommend to them?

46. How active, if at all, would you say senior leadership (e.g. hospital administrator, medical director) were in the checklist implementation process? Was there a champion? What was your role in implementation of the checklist?

SSIs, sepsis and maternal sepsis

47. What outcomes were you trying to achieve?

48. What progress have you made?

49. What has helped you achieve that progress?

50. What are some of the barriers that you have faced?

Impact

51. Do you feel this suite of interventions, all of these trainings we've talked about, have addressed some of your challenges with regards to surgery? How? (SPECT, WFSA, FAF, Touch Surgery, Project ECHO, Leadership, mentorship, clinical training)
52. What impact has the Safe Surgery 2020 project had on your hospital? Are there things you are doing differently now than you were before you started the project?
53. What has been the impact on providers, if any (culture, teamwork, communication, roles, satisfaction, OR space, equipment, satisfaction, sterilization procedures, anesthesia, surgical skills, etc.)?
54. What has been the impact on patients, if any (e.g. patient/staff interaction, SSI rates, sepsis rates, volume, referrals, etc.)? Do you have any stories of patient outcomes that were directly affected/changed by what you learned?

Facilitators/barriers

55. What has been most helpful to your accomplishments (e.g., resources provided by the project, leadership training, cultural changes, learning orientation, operational changes, skills training, remaking surgical or sterilization spaces,)?
56. What have been the most challenging aspects of your efforts to improve [outcome]? The most surprising?
57. What are some interventions or processes you'd like to see changed to improve surgery that haven't yet?

Lessons learned

58. In your opinion what are the most important lessons we can learn as SS2020 about successful implementation of surgical strengthening initiatives in Tanzania?
 - a. If you were giving advice to another hospital seeking to do the same, what would you tell them?
 - b. If you were leading a strengthening initiative in another hospital, what major elements would you be sure to incorporate?

- c. What advice would you give the people who designed and implemented these programs about how to make it effective in hospitals like this one? (Probe for successful implementation approaches).
- d. In your opinion how can we make these programs more effective in the future?

Closing

- 59. What is the most important message you want us to take away from this interview?
- 60. We are trying to understand the experience and impact of the Safe Surgery 2020 initiative on your hospital; is there anything we should have asked to understand this issue better?

Thank you for your time and participation in this interview.