

Appendix 1: Original Surgical Quality Tool Piloted

		IOM MEASURES					
		Safe	Effective	Patient centered	Timely	Efficient	Equitable
DONABEDIAN FRAMEWORK	Structure	Morbidity and Mortality Conference	Provider Density	-	Travel time to hospital	-	Comparative Median income of patients served to catchment population
	Process	Safe Surgery Checklist use inc. patient name bands, pulse oximetry	Procedure Density	Use of informed consent	Time from ED presentation to non-elective abdominal surgery	Daily OR usage	-
	Outcomes	Peri-operative mortality rate Cases Clavien Dindo ≥ 2	Caesarean Section Rate	Patient Hospital Satisfaction Questionnaire	Follow up plan	-	Catastrophic Patient reported expenditure

Appendix 2: Modified Intra-Operative Checklist**Date and Time of surgery**

yyyy-mm-dd

hh:mm

Patient Age

Surgery Performed

Diagnosis

Anesthesia

- ☐ General
- ☐ Local
- ☐ IV Sedation
- ☐ Epidural
- ☐ Other regional

Surgery Classification:

- ☐ Elective
- ☐ Non-Elective

- ☐ Emergency

World Health Organization Checklist Used

- ☐ Yes
☐ No

Pulse Oximetry Used

- ☐ Yes
☐ No

Identifying Name Band Used

- ☐ Yes
☐ No

Pre-operative Antibiotics Administered

- ☐ Yes
☐ No

Consent Form Signed

- ☐ Yes
☐ No

Date and time of hospital arrival

yyyy-mm-dd

hh:mm

Date and Time of Patient Admission

yyyy-mm-dd

hh:mm

Date and time of decision to operate the patient or OR reservation

yyyy-mm-dd

hh:mm

Surgery Duration

hh:mm

Who was the most senior person operating

- ☐ Year 1 resident
- ☐ Year 2 resident
- ☐ Year 3 resident
- ☐ Year 4 resident
- ☐ Surgeon

Number of OR rooms not in use

Anything Else

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Appendix 3: Example of Patient discharge survey: The questions have been adapted from the HCHAPS patient satisfaction survey, the patient reported expenditure questionnaire developed by Anderson et al and maternal mortality questionnaire assessing the three delays in care (Anderson et al., 2017; Thaddeus & Maine, 1994). (Anderson et al., 2017; Thaddeus & Maine, 1994) (Anderson et al., 2017; Thaddeus & Maine, 1994)

Patient Questionnaire

YOUR CARE FROM NURSES

1. During this hospital stay, how often did nurses treat you with courtesy and respect?
Never Sometimes Usually Always
2. During this hospital stay, how often did nurses explain things in a way you could understand?
Never Sometimes Usually Always

YOUR CARE FROM DOCTORS

During this hospital stay, how often were you seen by a doctor

Never Less than half of days More than half days Daily

3. During this hospital stay, how often did doctors treat you with courtesy and respect?
Never Sometimes Usually Always
4. During this hospital stay, how often did doctors explain things in a way you could understand?
Never Sometimes Usually Always

THE HOSPITAL ENVIRONMENT

5. During this hospital stay, how often were your room and bathroom kept clean?
Never Sometimes Usually Always
6. During this hospital stay, how often was the area around your room quiet at night? ^[1]_{SEP}
Never Sometimes Usually Always

YOUR EXPERIENCES IN THIS HOSPITAL

7. During this hospital stay, did you need help from nurses or other hospital staff in getting to the bathroom

or in using a bedpan?

Never Sometimes Usually Always

8. How often did you get help in getting to the bathroom or in using a bedpan as soon as you wanted?

Never Sometimes Usually Always

9. During this hospital stay, did you need medicine for pain?

Yes No → If No, Go to Question 15

10. During this hospital stay, how often was your pain well controlled?

Never Sometimes Usually Always

11. During this hospital stay, how often did the hospital staff do everything they could to help you with your pain?

Never Sometimes Usually Always

12. Before giving any new medicine to you, how often did hospital staff describe the purpose and possible side effects in a way you could understand?

a. Never Sometimes Usually Always

WHEN YOU LEFT THE HOSPITAL

13. During this hospital stay, did doctors, nurses or other hospital staff talk with you about whether you would have the help you needed when you left the hospital?

a. Yes No

14. During this hospital stay, did you get information in writing about what symptoms or health problems to look out for after you left the hospital?

a. Yes No

OVERALL RATING OF HOSPITAL

15. Using any number from 0 to 10, where 0 is the worst hospital possible and 10 is the best hospital possible, what number would you use to rate this hospital during your stay?

0 1 2 3 4 5 6 7 8 9 10

16. Would you recommend this hospital to your friends and family?

Definitely no Probably no Probably yes Definitely yes

UNDERSTANDING YOUR CARE WHEN YOU LEFT THE HOSPITAL

17. Have you received a follow up appointment or a plan for how you will receive further care?

Yes No

18. Do you think you will be able to attend this appointment?

Definitely no Probably no Probably yes Definitely yes Does not apply

ADVERSE EVENTS

19. Did you have a bad reaction to any medications that you were given in the hospital?
20. Did you have to return to the operating room for additional unplanned procedures after your initial surgery?
21. Did you fall while in the hospital?

ABOUT YOU

22. During this hospital stay, were you admitted to this hospital through the Emergency Room?
Yes No
23. In general, how would you rate your overall health?
Excellent Very good Good Fair Poor
24. In general, how would you rate your overall mental or emotional health?
Excellent Very good Good Fair Poor
25. What is the highest grade or level of school that you have completed?
- None
Primary- Incomplete
Primary- Complete
Secondary – Incomplete
Secondary - Complete
High School- Incomplete
High School- Complete
Graduate School- Incomplete
Graduate School - Complete
26. What is your ethnicity?
White Mixed Black Oriental Indian Indigenous
Don't want to declare

TYPICAL MONTHLY INCOME

Instructions to the patient/guardian: These are a series of questions to understand the structure of your household and how much money you make per month? These questions are all based on an average month? If you cannot determine an average, tell us how much you made in the last month?

27. What is your age?
28. What is your gender?

29. Where do you live (which municipality)?

30. How did you get to hospital? More than one can be selected

Walk Personal car Shared car Taxi Ambulance
Bus Other

31. What is the size of your household, including yourself (how many members normally live in your house)?

32. What occupation is held by the person who makes the most money in your household (*primary breadwinner*)?

33. How much does your household earn in an average month?

HOSPITALIZATION ASSOCIATED EXPENDITURES

Instructions to the patient: This is a series of questions related to how much money your household spent during this hospitalization for this patient. If you did not spend anything on the item in question, please state zero.

34. What type of operation did you have?

35. How many days were you in the hospital?

36. How much money did your household spend to transport the patient to the hospital?

37. How long did it take for the patient to reach the hospital once you started traveling?

38. How much money in total did your household spend for (all)/the attendant(s) to come to the hospital?

39. How much money did your household spend on medications?

40. How much money did your household spend on bandages and dressing supplies?

41. How much money did your household spend on laboratory tests?

42. How much money did your household spend on imaging and x-rays?

43. How much money did your household spend on any other medical supplies?

44. Did you have to pay any fees or make any informal payments directly to healthcare workers or hospital employees for your surgery or hospitalization? If so, how much did you pay? *Once again we want to emphasize that we are not recording your name, we do not need to know the name of anyone you paid money too, this is not for identification or blame. We are simply trying to understand how much patients have to pay for ALL types of costs.*

45. Did your household pay anyone else to act as an attendant and take care of the patient during this hospitalization?
46. Did you have to pay any other fees to the hospital besides those we have already mentioned? If yes, how much?
47. Did your household have to borrow money to pay for this hospitalization? If yes, how much?
48. Did your household have to sell any land or possessions to pay for this hospitalization?
49. Did your household have to permanently stop sending any children to school or stop paying school fees in order to pay for this hospitalization?
50. How much did your household have to spend on food during this hospitalization?
51. How much in wages do you feel your household has lost due to this hospitalization?
52. Did you or anyone in your household permanently lose a job as a result of this hospitalization?

DELAY IN DECISION TO SEEK CARE

53. At what time did you realize that you might be having a health problem? Date and time?
DD / MM / YY Time

54. How long after realizing that you might have a health problem was it decided that you should go to the hospital? (*If immediately, go to Q56*)

_____ circle one: hours / days

55. List reasons for the delay in deciding to go to the hospital:

56. Did you go to any other health facility prior to coming to this hospital?

☐ Yes - Name: _____ (*Ask 58*)
☐ No (Go to Q17)

57. How long did you spend travelling in each mode of transportation to get to the first facility ?

- ☐ On foot _____ circle one: hours / days
- ☐ In family's personal vehicle _____ circle one: hours / days
- ☐ In neighbor's/friend's personal vehicle _____ circle one: hours / days
- ☐ By a public transport (bus/train/taxi) _____ circle one: hours / days
- ☐ Other _____ circle one: hours / days

58. For how long were you treated in the other health facility?

_____ circle one: hours / days

59. Did the prior facility refer you to this facility?

- ☐ Yes (*Ask Q60-61*)
- ☐ No (*Go to Q62*)

60. How long after the referral was it that you came to this hospital?

_____ circle one: hours / days (*If not immediately ask Q16*)

61. List reasons for the delay in coming to this hospital after the referral:

DELAY IN REACHING CARE

62. How long did you spend travelling in each mode of transportation above?

- ☐ On foot _____ circle one: hours / days
- ☐ In family's personal vehicle _____ circle one: hours / days
- ☐ In neighbor's/friend's personal vehicle _____ circle one: hours / days
- ☐ By a public transport (bus/train/taxi) _____ circle one: hours / days
- ☐ Other _____ circle one: hours / days

63. Overall, how long did it take you after first realizing that you have health problem to get to this facility?

_____ circle one: hours / days

DELAY IN RECEIVING CARE

64. I am going to ask you some questions about the timeline of care you received at this hospital. Your comments will not be told to the staff (nurses and doctors here). What you say will not affect the care you receive here at all. We are only going to use this information to try to provide better services in the future.

65. How long did you wait before being examined by anyone?

_____ circle one: hours / days

66. How long did you wait before you were admitted to the hospital?

_____ circle one: hours / days

67. How long did you wait before getting the needed operation/treatment?

_____ circle one: hours / days

References:

- Anderson, G. A., Ilcisin, L., Kayima, P., Abesiga, L., Portal Benitez, N., Ngonzi, J., ... Shime, M. G. (2017). Out-of-pocket payment for surgery in Uganda: The rate of impoverishing and catastrophic expenditure at a government hospital. *PLoS One*, 12(10), e0187293. <https://doi.org/10.1371/journal.pone.0187293>
- Thaddeus, S., & Maine, D. (1994). Too far to walk: maternal mortality in context. *Soc Sci Med*, 38(8), 1091–1110.