

TABLE OF CONTENTS:

| | |
|---|-------|
| I. APPENDIX A: SURVEY METHODS, SAMPLING AND ASSESSMENT OF POTENTIAL RESPONSE | |
| BIASES | 1-13 |
| Table 1. Questions from 2017 Massachusetts Health Insurance Survey and 2018 Medical Error Re-contact Survey Considered in Analyses | 1-4 |
| Survey Design and Response | 5-9 |
| Survey Design | 5 |
| Survey Response | 5-7 |
| References | 8 |
| Figure 1. Sample Selection | 9 |
| Table 2. Characteristics Among Those With Medical Error Experience Who Agreed to Re-contact Versus Not in 2017 MHIS Survey | 10 |
| Table 3. Characteristics of Respondents Who Originally Reported Medical Error in 2017 MHIS Survey and were Re-contacted versus Not Re-contacted in 2018 | 11 |
| Table 4. Characteristics of Consistent and Non-Consistent Reporters of Medical Error in 2018 Re-contact Medical Error Survey | 12 |
| Response Rate Calculation | 13 |
| II. APPENDIX B: PROPERTIES OF THE OPEN COMMUNICATION INDEX | 14-18 |
| Explanation of Open Communication Index and Alternative Specifications..... | 14-15 |
| Table 5. Prevalence of Open Communication | 16 |
| Table 6. Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error..... | 17 |
| Table 7. Validation Tests of Open Communication | 18 |
| III. APPENDIX C: FULL REGRESSION MODELS | 19-22 |

| | |
|--|-------|
| Table 8. Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error Excluding Apology (Figure 2 in manuscript) | 19-20 |
| Table 9. Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error Including Apology (Figure 3 in manuscript) | 21-22 |

| | |
|--|--------------|
| IV. APPENDIX D: SENSITIVITY ANALYSES EXCLUDING RESPONDENTS NOT CLOSELY CONNECTED TO PERCEIVED ERROR | 23-28 |
| Explanation of Analyses Excluding Respondents Not Closely Connected to Perceived Error..... | 23-24 |
| Table 10. Odds Ratio from Logistic Regression Predicting Impacts of Medical Error Excluding Apology Limited to Respondents Closely Connected to Error..... | 25-26 |
| Table 11. Odds Ratio from Logistic Regression Predicting Impacts of Medical Error Including Apology Limited to Respondents Closely Connected to Error | 27-28 |
| V. APPENDIX E: FULL SURVEY INSTRUMENT..... | 29-54 |
| Massachusetts Medical Error Re-contact Survey | 29-54 |

Appendix A: Survey Methods, Sampling and Assessment of Potential Response Biases

Table 1: Questions from 2017 Massachusetts Health Insurance Survey and 2018 Medical Error Re- contact Survey Considered in Analyses

| 2017 Massachusetts Health Insurance Survey | Response Options |
|--|--|
| In the past five years, have you [have Target] or someone in [your/Target's] household or someone in [your/Target's] family living outside of [your/Target's] household experienced a medical error when receiving medical care, or has that not happened? | Yes, medical error was made in someone's care No, this has NOT happened |
| Was an error made in [your own/Target's] care, or the care of someone else living in [your/Target's] household, or the care of someone in [your/Target's] family living outside of the household], or all the above? | Error was made in your own care, error was made in the care of someone else living in your household, error was made in the care of someone in [your/TARGET's] family living outside of the household |
| If there was more than one error, please think about the most recent one when answering the next question. Did the error have serious health consequences, minor health consequences, or not health consequence at all for the person who experienced the error? | Serious health consequences, minor health consequences, not health consequences |
| We may follow-up with some survey participants to gather more in-depth information on their healthcare experiences in Massachusetts. Could we contact you again to ask a few more questions? | Yes or no |
| 2018 Medical Error Re-contact Survey | Response Options |
| Medical Error Characteristics | |
| In the past six years, that would be since about 2012, was a medical error made? | In your own care, in the care of someone else living in your household, in the care of someone in your family living outside of the household, someone else not in your family or not living in your household, or was no medical error made |
| About how long ago did this medical error happen? | < 1 year ago, 1-2 years ago, or 3-6 years ago |
| Who did the medical error happen to? | You, your spouse, your child who lives in your home, or your child who lives outside of your home |

| 2018 Medical Error Re-contact Survey | Response Options |
|--|--|
| Medical Error Characteristics continued... | |
| Were you responsible for making decisions about this person's care at the time the medical error occurred? | Yes, No |
| What best describes the place where the medical error occurred? | An emergency room, hospital, doctor's office or clinic, nursing home or other long-term care facility, pharmacy, dental office, at home, or somewhere else |
| Elements of Open Communication | |
| Did anyone at the place where the error occurred acknowledge to [you/them] that an error had occurred? | Yes or no |
| Did anyone on the care team speak openly and truthfully about the medical error you have been describing to me? | Yes or no |
| Did anyone on the care team speak to [you/them] about the medical error in an easy to understand way? | Yes or no |
| Did anyone on the care team give [you/them] the information needed to understand how the medical error would affect [your/their] health? | Yes or no |
| Did anyone on the care team give [you/them] a chance to ask questions about the medical error? | Yes or no |
| Did anyone on the care team give [you/them] a chance to express feelings about the medical error? | Yes or no |
| Apology | |
| Did [you/they] receive an apology? | Yes or no |

| 2018 Medical Error Re-contact Survey | Response Options |
|---|--|
| Initial Impacts: Physical | |
| When the medical error occurred how was [your/their] physical health affected overall? Did [you/their] physical health | Stay the same, get somewhat worse, get much worse, or did they die |
| How was [your/their] physical health impacted? | Extremely impacted, strongly impacted, somewhat impacted, or slightly impacted |
| Initial Impacts: Emotional | |
| Did you experience any of the following feelings as a result of the medical error? | Sadness, anger, anxiety, guilt, depression, feelings that the doctors abandoned or betrayed you or your family, or any other feelings |
| Impacts at Time of Survey: Physical | |
| How long was [your/their] physical health worse for? | < a week, between a week and a month, between a month and a year, more than a year but [you/they] are recovered now, or [Your/Their] health is still being impacted |
| Impacts at Time of Survey: Emotional | |
| Which of these emotions are you still experiencing? | Sadness, anger, anxiety, guilt, depression, feelings that the doctors abandoned or betrayed you or your family, or any other feelings |
| Healthcare Avoidance | |
| Since the medical error occurred, how frequently have [you/they] avoided the doctor involved in the care when the error occurred? | Never, sometimes, or always |
| Since the medical error occurred, how frequently have [you/they] avoided the healthcare facility where the error occurred? | Never, sometimes, or always |
| Since the medical error occurred, how frequently have [you/they] avoided getting medical care in general? | Never, sometimes, or always |

| 2018 Medical Error Re-contact Survey | Response Options |
|---|--|
| Healthcare Trust | |
| How do you feel after your experience with the medical error? | More trusting, less trusting, or is there no change in the level of trust you feel when you receive healthcare |
| Healthcare Trust: Financial | |
| Because of the medical error were [your/their] household finances affected by increased medical expenses? | Yes or No |
| Because of the medical error were [your/their] household finances affected by increased household expenses, such as for additional childcare, transportation, or household cleaning services? | Yes or No |
| Because of the medical error were [your/their] household finances affected by missed time at work? | Yes or No |
| Because of the medical error were [your/their] household finances affected by leaving a job for health reasons or to meet caregiver responsibilities? | Yes or No |
| Because of the medical error were [your/their] household finances affected by trouble paying bills? | Yes or No |
| Because of the medical error were [your/their] household finances affected by a decrease in income? | Yes or No |
| Because of the medical error were [your/their] household finances affected by any other way? | Yes or No |
| 2018 Medical Error Re-contact Survey | Response Options |
| Healthcare Trust: Questions used for Validating Open Communication | |
| Did [you/they] feel cared for by the care team? | Yes or No |
| All in all, how satisfied were [you/they] about the way the care team communicated about the medical error? Would you say... | Completely satisfied, somewhat satisfied, somewhat dissatisfied or not satisfied at all |

Survey Design and Response

Survey Design

The Massachusetts Health Insurance Survey (MHIS), conducted by the survey research firm SSRS on behalf of the state's Center for Health Information and Analysis, is a biannual telephone survey of approximately 5000 Massachusetts adult residents selected at random. The MHIS tracks trends in health insurance coverage, health status and interactions with the healthcare system. At the request of the state's Betsy Lehman Center for Patient Safety, the 2017 MHIS added a short "medical error" module of items drawn from other patient safety surveys.¹⁻³ Respondents were asked if they or a household or family member had experienced an error during the previous five years (Table 1). These are errors that respondents perceive to have occurred and have not validated with clinicians or medical records. All respondents were also asked for permission to re-contact them with follow-up questions.

In summer of 2018, SSRS conducted a re-contact survey largely focused on respondents who self-reported experience with medical error in the 2017 MHIS. SSRS made up to 29 attempts to contact each respondent by telephone. IRB approval for both surveys was obtained from Solutions IRB.⁴

Survey Response

All 5001 respondents in the 2017 Massachusetts Health Insurance Survey (MHIS) were asked if they could be re-contacted and 3,469 agreed (Figure 1). In the MHIS, 988 respondents (988/5001=20%) reported a perceived experience with medical error in the last five years and 74% of those (736/988) consented to re-contact. We found no significant differences in socio-demographics or experiences with medical error between respondents who agreed to re-contact and those who declined (Table 2).

SSRS completed interviews with 191 of the 736 (26%) who agreed to re-contact in the MHIS 2017 self-reported medical error group. Of the 545 MHIS medical error respondents who did not complete the re-contact survey, 95 declined when reached by SSRS. SSRS was unable to reach the remaining 450 largely due to disconnected numbers and no-answers. The socio-demographic characteristics of respondents who self-reported medical errors in the MHIS and then completed the re-contact survey did not differ significantly from respondents who did not complete the re-contact survey. SSRS was able to re-contact a higher percentage of respondents who had experienced medical error in their own care than those whose experience was related to an error that happened to a household or family member (Table 3).

SSRS also surveyed a random sample of MHIS respondents who self-reported no medical error experience on the initial survey, to capture more recently emerging errors and to serve as a comparison group

for broader research questions beyond this study. In the MHIS, 2733 respondents reported no medical error and agreed to re-contact. The target was to obtain 350 respondents (13%- 350/2733) from the comparison group in the re-contact survey.

Once in the field, 123 of the originally targeted 350 respondents self-reported a medical error in 2018, crossing over to the medical error group. Thus, a total of 433 respondents who originally perceived no medical error in 2017 were actually contacted to determine the comparison sample in 2018.

This study focuses on a medical error cohort of 253 respondents who self-reported a medical error in the 2018 re-contact survey. Of the 191 respondents who reported a medical error in the MHIS 2017 survey and SSRS re-contacted in 2018, 68% (130/191) reported a medical error in 2017. Sixty-one (32%) crossed over to the comparison group.

Of the 433 respondents who did not report medical error in MHIS 2017 and who were re-contacted in 2018, 72% (310/433) continued to report no medical error. Another 8% (35/433=8%) reported no error in the 2017 MHIS survey but reported experiencing an error in the last year on the 2018 survey. The remaining 20% (88/433) reported no medical error in MHIS 2017 but self-reported a medical error in 2018 that occurred ≥ 1 year ago.

There are no socio-demographic differences and few medical error characteristics differences between the respondents who consistently self-reported a medical error (either in both surveys (n=130) or no error in 2017 but error in 2018 and error occurred <1 year ago (n=35)) and inconstant reporters of medical error (reported no medical error in 2017 and a medical error occurring >1 year ago in 2018- n=88). Consistent reporters were significantly more likely to report that more than one error had occurred to their household or family member (Table 4).

Consequently, the study sample focused on the 253 respondents who self-reported medical error in the 2018 survey. This includes 130 respondents who reported medical error in both surveys and 123 (88+35) respondents who reported no medical error in 2017 and crossed over to the medical error sample in 2018.

Since analyses focus on individuals self-reporting a medical error, we are reporting the response rate that is focused on the medical error group. The reported response rate is the American Association Public Opinion Research (AAPOR) R3.⁵ In calculating this response rate, the dual frame telephone AAPOR R3 accounts for the rate at which sample records reach actual households (in the case of landlines) or people's personal (not business) communication devices (in the case of cellphones), and as well then assess the degree

to which they are eligible to participate (for example, over 20% of cell phone owners are ineligible as they are under the age of 18). The calculation also uses data available to estimate the rate at which unconfirmed sample records (no answers for example) should be assumed to be eligible sample units. The response rate cannot take cross-over into account so it is focused on the 191 respondents who reported medical error in the 2017 MHIS and were re-contacted in 2018.

Consequently, the self-reported medical error group had an initial response rate of 41.0% (see Response Rate Calculation). This response rate multiplied by 24.6% (the MHIS response rate) resulted in a final response rate of 10.1% which compares favorably with similar telephone health surveys.⁶ Furthermore, the concern of a low response rate leading to a significant source of nonresponse bias is only warranted if those that do respond are significantly different from those that do not.^{7, 8} Table 2 and 3 highlight similar characteristics among the responders and non-responders minimizing concerns about response bias. The margin of error for the medical error group is +/-8.7 percentage points.⁹

References

1. NORC at the University of Chicago, IHI/NPSF Lucian Leape Institute. Americans' Experiences with Medical Errors and Views on Patient Safety. Cambridge (MA): Institute for Healthcare Improvement and NORC at the University of Chicago; 2017. 38 p. Available from: www.ihl.org/about/news/Documents/IHI_NPSF_NORC_Patient_Safety_Survey_2017_Final_Report.pdf
2. Harvard School of Public Health. The Public's Views on Medical Error in Massachusetts. Boston (MA): Betsy Lehman Center for Patient Safety and Health Policy Commission; 2014. 47 p. Available from: <https://www.betsylehmancenterma.gov/assets/uploads/blc-hsph-research-report.pdf>
3. Henry J Kaiser Family Foundation [Internet]. San Francisco (CA): KFF; 2006. Summary and Chartpack: 2006 Update on Consumers' Views of Patient Safety and Quality Information; 2006 Sep 01 [cited 2019 Jul 19]; [20 slides]. Available from: <https://www.kff.org/other/poll-finding/summary-and-chartpack-2006-update-on-consumers/>
4. Solutions IRB. Homepage [Internet]. Yarnell (AZ): Solutions IRB; 2019 [cited 2019 Jul 19]. Available from: <https://www.solutionsirb.com/>
5. The American Association for the Public Opinion Research. Standard definitions: final dispositions of case codes and outcome rates for surveys. Oakbrook Terrace (IL): AAPOR; 2016. 81 p. Available from: www.aapor.org/AAPOR_Main/media/publications/Standard-Definitions20169theditionfinal.pdf
6. SSRS [Internet]. Glen Mills (PA): SSRS; 2019. Nonresponse and Bias Trends in Telephonic Probability Sample; 2018 Oct [cited 2019 Jul 19]. Available from: <https://ssrs.com/nonresponse-and-bias-trends-in-telephonic-probability-samples/>
7. Davern M. Nonresponse rates are a problematic indicator of nonresponse bias in survey research. *Health Serv Res* [Internet]. 2013 Jun [cited 2019 Dec 18];48(3):905-12. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3681235/> DOI: 10.1111/1475-6773.12070.
8. Johnson TP, Wislar JS. Response rates and nonresponse errors in surveys. *JAMA* [internet]. 2012 May [cited 2019 Dec 18];307(17):1805-1806. Available from: <https://jamanetwork.com/journals/jama/article-abstract/1150104> DOI: 10.1001/jama.2012.3532
9. SSRS. Massachusetts Medical Error Recontact Survey. Boston (MA): Prepared for Betsy Lehman Center for Patient Safety; 2018. 41 p.

Figure 1: Sample Selection

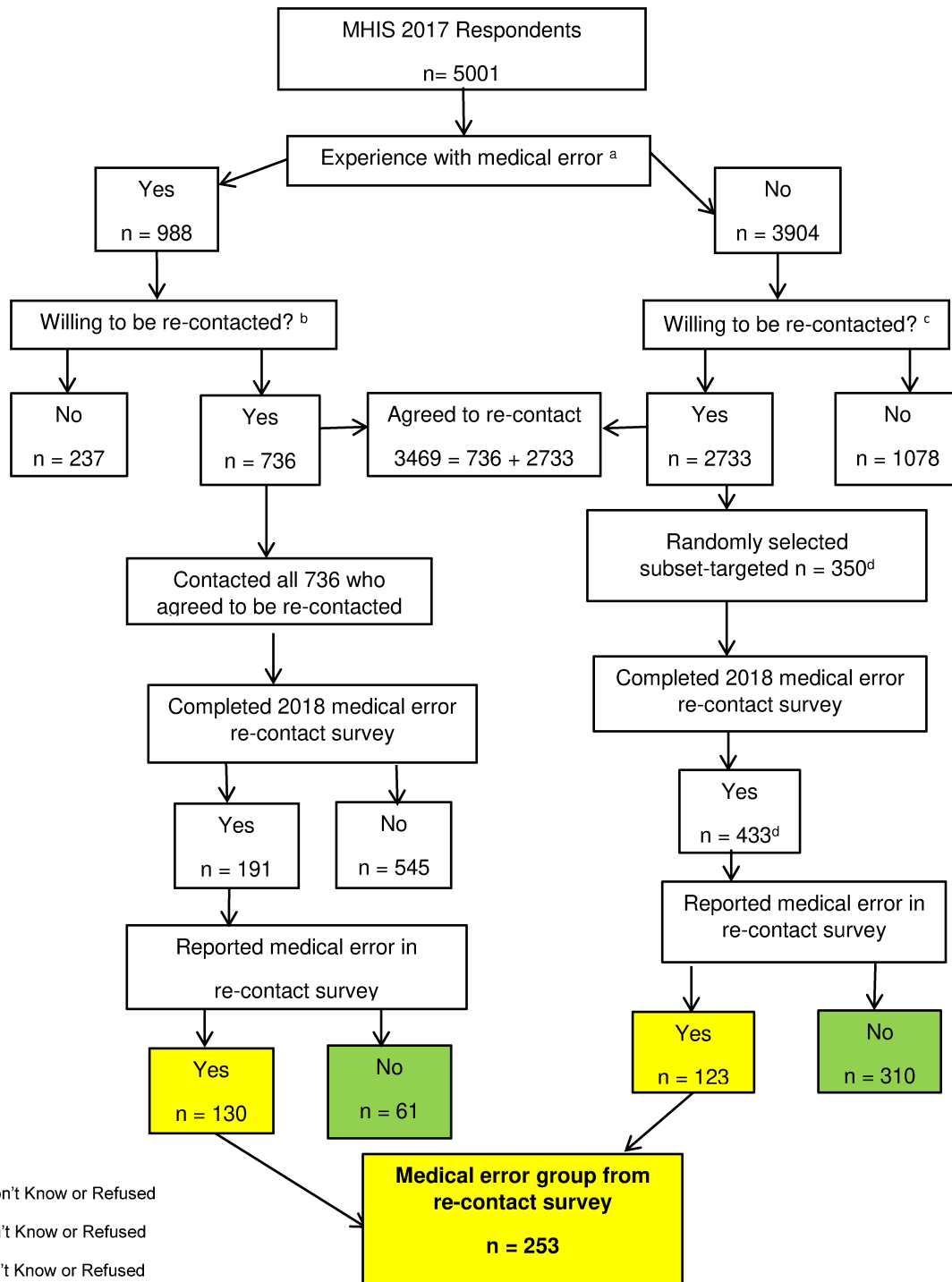


Table 2: Characteristics Among Those With Medical Error Experience Who Agreed to Re-contact Versus Not in 2017 MHIS Survey (n=988)

| | Yes n (%)^b | No n (%) |
|---|----------------------------------|---------------------|
| Age (years) (n=967)^a | n=727 | n=240 |
| <18 | 89 (12) | 21 (9) |
| 19-64 | 458 (63) | 148 (62) |
| ≥65 | 180 (25) | 71 (29) |
| Gender (n=986) | n=736 | n=250 |
| Male | 333 (45) | 122 (49) |
| Female | 403 (55) | 128 (51) |
| Education (n=898) | n=662 | n=236 |
| Less than high school | 40 (6) | 11 (5) |
| High school | 142 (21) | 53 (22) |
| Associates degree or some college | 172 (26) | 60 (25) |
| College graduate | 164 (25) | 58 (25) |
| Postgraduate | 144 (22) | 54 (23) |
| Race/Ethnicity (n=946) | n=710 | n=236 |
| Non-Hispanic white | 587 (83) | 201 (85) |
| Non-Hispanic black | 26 (3) | 15 (6) |
| Non-Hispanic other | 34 (5) | 8 (3) |
| Hispanic | 63 (9) | 12 (5) |
| Income (n=863) | n=680 | n=183 |
| <139% federal poverty level | 147 (22) | 47 (26) |
| ≥139% to <300% federal poverty level | 138 (20) | 37 (20) |
| ≥300% to <400% federal poverty level | 59 (9) | 23 (13) |
| ≥400% federal poverty level | 336 (49) | 76 (41) |
| Medical Error Characteristics | | |
| Medical error was in own or MHIS target's care (n=988) | n=736 | n=252 |
| Yes | 201 (27) | 70 (28) |
| No | 535 (73) | 182 (72) |
| Health consequences of the error (n=970) | n= 723 | n=247 |
| Serious health consequences | 438 (61) | 152 (62) |
| Minor health consequences | 209 (29) | 65 (26) |
| No health consequences | 76 (10) | 30 (12) |

^a Sample sizes vary due to respondents responding don't know or refusing to answer the question.

^b Unweighted percentages

Table 3: Characteristics of Respondents Who Originally Reported Medical Error in 2017 MHIS Survey and were Re-contacted versus Not Re-contacted in 2018 (n=736)

| | Re-contacted | |
|---|---------------------------|---------------|
| | Yes n (%) ^b | No n (%) |
| Age (years) (n=727)^a | n=187 | n=540 |
| <18 | 24 (13) | 65 (12) |
| 19-64 | 112 (60) | 346 (64) |
| ≥65 | 51 (27) | 129 (24) |
| Gender (n=736) | n= 191 | n= 545 |
| Male | 90 (47) | 243 (45) |
| Female | 101 (53) | 302 (55) |
| Education (n=662) | n=172 | n=490 |
| Less than high school | 10 (6) | 30 (6) |
| High school | 38 (22) | 104 (21) |
| Associates degree or some college | 39 (23) | 133 (27) |
| College graduate | 51 (30) | 113 (23) |
| Postgraduate | 34 (20) | 110 (22) |
| Race/Ethnicity (n=710) | n=185 | n=525 |
| Non-Hispanic white | 158 (85) | 429 (82) |
| Non-Hispanic black | 6 (3) | 20 (4) |
| Non-Hispanic other | 12 (7) | 22 (4) |
| Hispanic | 9 (5) | 54 (10) |
| Income (n=680) | n=176 | n=504 |
| <139% federal poverty level | 37 (21) | 110 (22) |
| ≥139% to <300% federal poverty level | 42 (24) | 96 (19) |
| ≥300% to <400% federal poverty level | 19 (11) | 40 (8) |
| ≥400% federal poverty level | 78 (44) | 258 (51) |
| Medical Error Characteristics | | |
| Medical error was in own or MHIS target's care (n=736) | n= 191 | n=545 |
| Yes | 66 (35)* | 135 (25) |
| No | 125 (65) | 410 (75) |
| Health consequences of the error (n=723) | n=186 | n=537 |
| Serious health consequences | 122 (66) | 316 (59) |
| Minor health consequences | 42 (22) | 167 (31) |
| No health consequences | 22 (12) | 54 (10) |

^aSample sizes vary due to respondents responding don't know or refusing to answer the question.

^bUnweighted percentages.

*Chi-square is significant at $P \leq 0.05$

Table 4: Characteristics of Consistent and Non-Consistent Reporters of Medical Error in 2018 Re-contact Medical Error Survey (n=253)

| | Consistent Reporter | |
|---|---------------------------|-------------|
| | Yes n (%) ^b | No n (%) |
| Age (years) (n=246)^a | n=160 | n=86 |
| <18 | 17 (11) | 7 (8) |
| 19-64 | 103 (64) | 54 (63) |
| ≥65 | 40 (25) | 25 (29) |
| Gender (n=253) | n=165 | n=88 |
| Male | 62 (38) | 43 (49) |
| Female | 103 (62) | 45 (51) |
| Education (n=237) | n=154 | n=83 |
| Less than high school | 12 (8) | 3 (4) |
| High school | 28 (18) | 15 (18) |
| Associates degree or some college | 39 (25) | 15 (18) |
| College graduate | 44 (29) | 25 (30) |
| Postgraduate | 31 (20) | 25 (30) |
| Race/Ethnicity (n=248) | n=162 | n=86 |
| Non-Hispanic white | 136 (84) | 77 (90) |
| Non-Hispanic black | 6 (4) | 3 (3) |
| Non-Hispanic other | 12 (7) | 3 (3) |
| Hispanic | 8 (5) | 3 (3) |
| Income (n=236) | n=153 | n=83 |
| <139% federal poverty level | 34 (22) | 14 (17) |
| ≥139% to <300% federal poverty level | 33 (22) | 20 (24) |
| ≥300% to <400% federal poverty level | 14 (9) | 8 (10) |
| ≥400% federal poverty level | 72 (47) | 41 (49) |
| Medical Error Characteristics | | |
| Who medical error happened to (n=251) | n=164 | n=87 |
| Self | 67 (41) | 36 (41) |
| Spouse/Child | 35 (21) | 26 (30) |
| Other | 62 (38) | 25 (29) |
| Did more than one medical error happen to you or a household or family member? (n=252) | n=164 | n=88 |
| Yes | 66 (40)* | 16 (18) |
| No | 98 (60) | 72 (82) |
| Where medical error happened (n=253) | n=165 | n=88 |
| Hospital (not ER) | 71 (43) | 41 (47) |
| Ambulatory care/doctor's office | 49 (30) | 26 (30) |
| ER | 15 (9) | 11 (12) |
| Other | 30 (18) | 10 (11) |

^aSample sizes vary due to respondents responding don't know or refusing to answer the question.

^bUnweighted percentage.

*Chi-square is significant at $P \leq 0.05$

Response Rate Calculation

Completes / Completes + Confirmed Non-respondents + (Confirmed Unscreened Households * e1) + (Unconfirmed Households * e1 * e2).

Where:

E1 = estimate of screener eligibility = Confirmed eligible respondents / (Confirmed eligible respondents + confirmed not eligible respondents)

E2 = estimate of household eligibility = Confirmed eligible households / (Confirmed eligible households + confirmed not eligible households)

Thus:

Medical Errors sample:

$$RR3 = 191 / 191 + 0 + (146 * .81) + (245 * .79 * .81) = 0.409$$

$$E2 = 191 / 191 + 45$$

$$E1 = 382 / 382 + 100$$

$$0.409 * 0.246 \text{ (MHIS response rate)} = 0.101$$

Appendix B: Properties of the Open Communication Index

We assessed open communication based on respondent report of whether the care team or anyone at the place where the error occurred: (1) acknowledged the error; (2) spoke openly and truthfully about it; (3) spoke about it in a manner easily understood; (4) conveyed information about the health consequences of the error; (5) welcomed questions about the error; or (6) provided opportunities to express feelings about the error. Of the 246 responses to the individual questions used to develop the open communication index, the most common form of open communication received was the offer to ask questions about the perceived error (46%) (Table 5); the least prevalent was whether the event was acknowledged as an error (29%). Thirty one percent reported getting information needed to understand how the perceived medical error would impact their health, 34% reported the care team spoke openly or truthfully about the error, and 39% reported they were given a chance to express feelings about the error and the care team spoke about the error in an easy to understand way.

An equal-weighted count of these elements yielded a Cronbach's alpha of 0.839 indicating high internal consistency. To examine threshold effects related to open communication, we categorized respondents into four strata: no reported communication, communication involving 1-2 elements, 3-4 elements or 5-6 elements. When categorizing the elements of the open communication index into strata, 34% percent reported that they received no communication about the error, 31% reported 1-2 elements of open communication, 12% 3-4 elements and 24% 5-6 elements (Table 5).

To test the robustness of the results regarding open communication, we also tested several alternatives to the open communication index in the logistic regression models examining the impact of open communication on the three outcomes of interest: emotional harms, health care trust, and health care avoidance. These alternatives included a version normalized to between 0 and 1, a factor-based weighting version with weights based on the inter-item correlations, and an inverse proportional weighting

version that weighted questions in the index that had lower prevalence more heavily. The linear form of each of these versions of the index was used in the logistic regression models (Table 6). As results were qualitatively similar to open communication index stratified into 0, 1-2, 3-4 and 5-6 elements, we report only the findings from stratified version in the main paper (Figures 2 and 3 in manuscript).

Respondents were also asked to characterize their overall satisfaction with post-error communication and whether they felt cared for by the team. We used the responses to these questions to further validate our measure of open communication. There was a positive relationship between greater open communication and each of these questions (Table 7).

Table 5: Prevalence of Open Communication (n=246)

| Elements of Open Communication | n (%)^a |
|--|--------------------------|
| Did anyone at the place where the error occurred acknowledge that an error had occurred? | 71 (29) |
| Did anyone on the care team speak openly or truthfully about the medical error? | 84 (34) |
| Did anyone on the care team give a chance to ask questions about the medical error? | 113 (46) |
| Did anyone on the care team give a chance to express feelings about the medical error? | 96 (39) |
| Did anyone on the care team give information needed to understand how the medical error would affect health? | 76 (31) |
| Did anyone associated with the care team speak about the medical error in an easy to understand way? | 95 (39) |
| Number of open communication elements experienced by respondents | |
| No communication | 83 (34) |
| 1-2 elements | 75 (31) |
| 3-4 elements | 29 (12) |
| 5-6 elements | 59 (24) |

^aPercentages are adjusted by sampling weights to reflect the distribution of the adult population in Massachusetts.

Table 6: Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error

| | Emotional | | | | | Healthcare Avoidance | | | Trust |
|--|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|--|
| | Still sad (n=224) ^a | Still angry (n=224) | Still anxious (n=224) | Still depressed (n=224) | Still feeling abandoned or betrayed (n=224) | Avoid doctor involved in error (n=190) | Avoid facility involved in error (n=194) | Avoid medical care in general (n=211) | Less trusting of medical care after error (n=223) |
| Models without apology | | | | | | | | | |
| Model 1: Normalized open communication index | | | | | | | | | |
| Open communication | 0.25** | 0.44* | 0.45 | 0.23** | 0.09** | 0.17** | 0.08** | 0.49 | 0.82 |
| Model 2: Factor weighted open communication index | | | | | | | | | |
| Open communication | 0.25** | 0.43* | 0.44 | 0.23** | 0.09** | 0.18** | 0.08** | 0.49 | 0.83 |
| Model 3: Inverse proportional weighted open communication index | | | | | | | | | |
| Open communication | 0.25** | 0.43* | 0.44 | 0.23** | 0.09** | 0.17** | 0.08** | 0.48 | 0.82 |
| Models with apology | | | | | | | | | |
| Model 1: Normalized open communication index | | | | | | | | | |
| Open communication | 0.27** | 0.64 | 0.81 | 0.39 | 0.18** | 0.28** | 0.08** | 0.92 | 0.78 |
| Received apology (reference = no) | 0.85 | 0.5 | 0.33** | 0.32 | 0.18** | 0.42* | 0.96 | 0.28** | 1.09 |
| Model 2: Factor weighted open communication index | | | | | | | | | |
| Open communication | 0.28** | 0.62 | 0.77 | 0.38 | 0.17** | 0.29** | 0.08** | 0.91 | 0.79 |
| Received apology (reference = no) | 0.84 | 0.5 | 0.33** | 0.32* | 0.18** | 0.42* | 0.94 | 0.28** | 1.08 |
| Model 3: Inverse proportional weighted open communication index | | | | | | | | | |
| Open communication | 0.27** | 0.64 | 0.80 | 0.39 | 0.17** | 0.28** | 0.08** | 0.90 | 0.78 |
| Received apology (reference = no) | 0.85 | 0.50 | 0.33** | 0.32 | 0.18** | 0.42* | 0.95 | 0.28** | 1.09 |

* $P \leq 0.10$, ** $P \leq 0.05$

^aLogistic regression models also controlled for the initial financial and physical impacts of the error as well as other individual characteristics that might alter respondents' assessment of the error experience: who experienced the error, whether the respondent was responsible for the medical care of the individual who experienced the error, how long since the error occurred, gender and respondents' education level.

Table 7: Validation Tests of Open Communication

| | Satisfied with Communication about Error (n=229)^a | | Felt cared for by care team (n=246) | |
|------------------------------|---|---------------------|--|---------------------|
| | Yes n (%)^b | No n (%) | Yes n (%) | No n (%) |
| Open Communication | | | | |
| No communication about error | 2 (3)* | 66 (97) | 31 (37)* | 52 (63) |
| Affirmed in 1-2 ways | 8 (11) | 67 (89) | 14 (19) | 61 (81) |
| Affirmed in 3-4 ways | 17 (61) | 11 (39) | 21 (73) | 8 (27) |
| Affirmed in 5-6 ways | 51 (87) | 7 (13) | 54 (91) | 5 (9) |

^aSample sizes vary due to respondents reporting "Don't know" or Refused or N/A

^bPercentages are adjusted by sampling weights to reflect the distribution of the adult population in Massachusetts

*Chi-square significant at $P \leq 0.05$ based on unweighted percentages

Appendix C: Full Regression Models

Table 8: Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error Excluding Apology

| | Emotional | | | | | Healthcare Avoidance | | | Trust |
|--|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|--|
| | Still sad (n=224) ^a | Still angry (n=224) | Still anxious (n=224) | Still depressed (n=224) | Still feeling abandoned or betrayed (n=224) | Avoid doctor involved in error (n=190) | Avoid facility involved in error (n=194) | Avoid medical care in general (n=211) | Less trusting of medical care after error (n=223) |
| Open communication (reference=No communication) | | | | | | | | | |
| 1-2 elements | 0.41* | 0.91 | 0.87 | 0.56 | 0.42* | 0.66 | 0.39** | 1.08 | 0.90 |
| 3-4 elements | 0.92 | 1.19 | 0.56 | 0.96 | 0.17** | 0.34** | 0.16** | 0.46 | 0.86 |
| 5-6 elements | 0.17** | 0.38* | 0.53 | 0.16** | 0.10** | 0.21** | 0.10** | 0.55 | 0.81 |
| Medical error happened 3-6 years ago versus less than 3 years ago | 1.38 | 0.49** | 1.19 | 1.11 | 1.29 | 1.53 | 1.43 | 1.04 | 0.73 |
| Physical impact from error (reference = no impact) | | | | | | | | | |
| Somewhat or slightly impacted | 2.5 | 1.38 | 1.81 | 4.46** | 3.23* | 4.12** | 3.66** | 2.37* | 1.84 |
| Died, extremely or strongly impacted | 7.52** | 3.03** | 3.09** | 8.10** | 4.11** | 2.46* | 3.01** | 1.90 | 2.33** |
| Financial impact (reference = no impact) | | | | | | | | | |
| Reported finances impacted one way | 1.22 | 0.56 | 1.01 | 0.65 | 0.93 | 2.01 | 2.31* | 0.82 | 1.28 |
| Reported finances impacted ≥2 ways | 1.75 | 1.43 | 2.17* | 1.09 | 2.37* | 2.10* | 2.60** | 2.32** | 2.58** |
| Who experienced error (ref=experienced error themselves)^b | | | | | | | | | |
| Did not experience error but responsible for medical care of individual that experienced error | 1.65 | 0.69 | 0.74 | 0.95 | 0.49 | 1.32 | 1.27 | 0.98 | 1.07 |
| Did not experience error and not responsible for medical care of individual that experienced error | 0.81 | 0.80 | 0.23** | 0.39** | 0.19** | 0.69 | 0.55 | 0.38** | 0.52* |

| Continued... | Emotional | | | Healthcare Avoidance | | | | | Trust |
|---|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|--|
| | Still sad (n=224) ^a | Still angry (n=224) | Still anxious (n=224) | Still depressed (n=224) | Still feeling abandoned or betrayed (n=224) | Avoid doctor involved in error (n=190) | Avoid facility involved in error (n=194) | Avoid medical care in general (n=211) | Less trusting of medical care after error (n=223) |
| Education level (reference = ≤ high school graduate) | | | | | | | | | |
| Associates degree or some college | 2.84* | 0.81 | 1.64 | 2.36 | 2.79* | 0.97 | 0.76 | 0.36** | 0.88 |
| College graduate | 1.63 | 0.6 | 1.67 | 0.64 | 3.42** | 0.88 | 0.99 | 0.44* | 0.97 |
| Postgraduate work | 3.27** | 0.84 | 1.06 | 1.10 | 4.03** | 1.32 | 1.95 | 0.41* | 0.95 |
| Female | 1.03 | 1.64 | 1.28 | 1.34 | 1.42 | 1.45 | 1.00 | 0.94 | 1.92** |
| Constant | 0.05** | 0.39* | 0.18** | 0.08** | 0.07** | 0.48 | 0.88 | 0.72 | 0.72 |

* $P \leq 0.10$, ** $P \leq 0.05$

^aSample sizes vary due to respondents reporting "Don't know" or Refused or N/A

Table 9: Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error Including Apology

| | Emotional | | | | | Healthcare Avoidance | | | Trust |
|--|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|---|
| | Still sad (n=224) ^a | Still angry (n=224) | Still anxious (n=224) | Still depressed (n=224) | Still feeling abandoned or betrayed (n=224) | Avoid doctor involved in error (n=190) | Avoid facility involved in error (n=194) | Avoid medical care in general (n=211) | Less trusting of medical care after error (n=223) |
| Open communication (reference=No communication) | | | | | | | | | |
| 1-2 elements | 0.42* | 1.00 | 1.00 | 0.65 | 0.49 | 0.74 | 0.39* | 1.26 | 0.89 |
| 3-4 elements | 0.98 | 1.47 | 0.79 | 1.35 | 0.24** | 0.42* | 0.17** | 0.60 | 0.84 |
| 5-6 elements | 0.20** | 0.55 | 0.93 | 0.27 | 0.19* | 0.36* | 0.11** | 1.02 | 0.77 |
| Received apology (reference=no) | | | | | | | | | |
| Medical error happened 3-6 years ago versus less than 3 years ago | 0.81 | 0.49 | 0.32** | 0.30* | 0.20* | 0.40* | 0.87 | 0.28** | 1.09 |
| | 1.39 | 0.49** | 1.23 | 1.13 | 1.36 | 1.56 | 1.44 | 1.08 | 0.73 |
| Physical impact from error (reference = no impact) | | | | | | | | | |
| Somewhat or slightly impacted | 2.47 | 1.31 | 1.73 | 4.20** | 3.15* | 3.94** | 3.63** | 2.27* | 1.85 |
| Died, extremely or strongly impacted | 7.58** | 3.10** | 3.20** | 8.37** | 4.20** | 2.44* | 3.02** | 1.96 | 2.32** |
| Financial impact (reference = no impact) | | | | | | | | | |
| Reported finances impacted one way | 1.23 | 0.56 | 0.99 | 0.67 | 0.93 | 1.97 | 2.30* | 0.79 | 1.28 |
| Reported finances impacted ≥2 ways | 1.74 | 1.42 | 2.15* | 1.05 | 2.40* | 2.13* | 2.60** | 2.38** | 2.58** |
| Who experienced the error (ref=experienced error themselves)^b | | | | | | | | | |
| Did not experience error but responsible for medical care of individual that experienced error | 1.64 | 0.68 | 0.74 | 0.89 | 0.47 | 1.29 | 1.26 | 0.91 | 1.07 |
| Did not experience error and not responsible for medical care of individual that experienced error | 0.80 | 0.80 | 0.22** | 0.38** | 0.18** | 0.68 | 0.55 | 0.37** | 0.52* |

| Continued... | Emotional | | | | | Health Care Avoidance | | | Trust |
|---|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|---|
| | Still sad (n=224) ^a | Still angry (n=224) | Still anxious (n=224) | Still depressed (n=224) | Still feeling abandoned or betrayed (n=224) | Avoid doctor involved in error (n=190) | Avoid facility involved in error (n=194) | Avoid medical care in general (n=211) | Less trusting of medical care after error (n=223) |
| Education level (reference = ≤ high school graduate) | | | | | | | | | |
| Associates degree or some college | 2.85* | 0.84 | 1.79 | 2.48* | 2.93* | 1.04 | 0.77 | 0.37** | 0.87 |
| College graduate | 1.65 | 0.62 | 1.82 | 0.69 | 3.74** | 0.90 | 1.00 | 0.45* | 0.96 |
| Postgraduate work | 3.23** | 0.81 | 1.03 | 1.02 | 3.96** | 1.30 | 1.95 | 0.40* | 0.96 |
| Female | 1.03 | 1.66 | 1.35 | 1.32 | 1.49 | 1.52 | 1.01 | 0.99 | 1.91** |
| Constant | 0.05** | 0.39* | 0.17** | 0.08** | 0.07** | 0.48 | 0.88 | 0.70 | 0.73 |

* $P \leq 0.10$, ** $P \leq 0.05$

^aSample sizes vary due to respondents reporting "Don't know" or Refused or N/A

Appendix D: Sensitivity Analyses Excluding Respondents Not Closely Connected to Perceived Error

Some respondents reporting a perceived error were not closely connected to the error. For example, the error happened to extended family members living outside of the household and the respondent was not responsible for the medical care of the family member that reported the error. This raises the question of whether these respondents can accurately report on the relationship between open communication and the long-term impacts of the self-reported medical error.

Even if a respondent does not self-report experiencing the error and are not responsible for the medical care of the individual who did, there may still be caregiver burden that impacts their outcomes.¹ For example, the survey respondent may be a daughter and she reported on an error that her mother experienced. Her mother may be responsible for her own medical care but the daughter may experience caregiver burden such as the need to take time off work to take her mother to appointments for follow-up care that impacts her own emotions long-term as well as her future interactions with the health care system. Consequently, the universe of the “best respondents” who we can most closely make a link between open communication to outcomes is not always clear.

However, to examine the robustness of the results, we did try to identify a universe of “best respondents” and ran analyses limited only to this group. The information is collected over several questions which at times gives conflicting information. The survey starts (S1) by asking respondents whether a medical error was made in the last six years:

- a) In their own care
- b) In the care of someone else living in our household
- c) In the care of someone in your family living outside of the household
- d) Someone else not in your family or not living in your household
- e) Or no medical error was made.

Respondents could choose more than one option. Everyone who reported A-C were considered to be the initial error group (n=253). Respondents choosing options D and E were assigned to the control group from the beginning. Recognizing group C may be biasing the results, sensitivity analyses further limited the self-reported error group as follows:

- a) Respondents who said A-B in question S1
- b) Respondents in group C in question S1 who later reported in Qn3 the error happened to themselves, their spouse or their child.
- c) Respondents in group C in question S1 who later reported the error happened to a more extended family member (e.g. mother, father) but they were responsible for the medical care.

This excluded 60 respondents who reported the error happened to a more extended family member (e.g. mother, father, sibling, aunt) and they were not responsible for the medical care of the individual who was reported to have experienced the error. Excluding this group did not qualitatively change the overall results between open communication and each of the emotional and healthcare avoidance outcomes (see Table 10 and 11).

Reference:

1. [Giovannetti ER, Wolff JL. Cross-survey difference in national estimates of numbers of caregivers of disabled older adults. *Milbank Q* \[Internet\]. 2010 Sep \[cited 2019 Dec 4\]; 88\(3\):310-349. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/20860574> DOI: 10.1111/j.1468-0009.2010.00602.x.](https://www.ncbi.nlm.nih.gov/pubmed/20860574)

Table 10: Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error Excluding Apology Limited to Respondents Closely Connected to Error^a

| | Emotional | | | | | Healthcare Avoidance | | | Trust |
|--|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|--|
| | Still sad (n=173) ^b | Still angry (n=173) | Still anxious (n=173) | Still depressed (n=173) | Still feeling abandoned or betrayed (n=173) | Avoid doctor involved in error (n=152) | Avoid facility involved in error (n=153) | Avoid medical care in general (n=165) | Less trusting of medical care after error (n=173) |
| Open communication (reference=No communication) | | | | | | | | | |
| 1-2 elements | 0.52 | 0.89 | 1.08 | 1.12 | 0.37** | 0.80 | 0.36* | 0.89 | 0.77 |
| 3-4 elements | 1.24 | 1.00 | 0.86 | 1.87 | 0.14** | 0.22** | 0.11** | 0.43 | 1.60 |
| 5-6 elements | 0.13** | 0.18** | 0.74 | 0.31 | 0.06** | 0.11** | 0.05** | 0.65 | 0.78 |
| Medical error happened 3-6 years ago versus less than 3 years ago | 1.81 | 0.32** | 1.26 | 0.99 | 0.95 | 1.24 | 1.17 | 0.93 | 0.73 |
| Physical impact from error (reference = no impact) | | | | | | | | | |
| Somewhat or slightly impacted | 3.59* | 1.16 | 1.90 | 5.38** | 3.61** | 3.95** | 2.56* | 1.94 | 2.15* |
| Died, extremely or strongly impacted | 8.29** | 3.03** | 3.69** | 8.08** | 3.51** | 2.43* | 2.28 | 1.58 | 4.23** |
| Financial impact (reference = no impact) | | | | | | | | | |
| Reported finances impacted one way | 0.62 | 0.33* | 0.70 | 0.38 | 0.83 | 2.36 | 2.77* | 1.52 | 0.97 |
| Reported finances impacted ≥2 ways | 1.29 | 1.33 | 1.82 | 0.92 | 2.55 | 2.52* | 3.05** | 3.50** | 1.88 |
| Who experienced error (ref=experienced error themselves)^b | | | | | | | | | |
| Did not experience error but responsible for medical care of individual that experienced error | 1.90 | 0.74 | 0.70 | 0.99 | 0.48 | 1.79 | 1.74 | 0.86 | 0.98 |
| Did not experience error and not responsible for medical care of individual that experienced error | 0.92 | 0.97 | 0.32** | 0.25** | 0.21** | 0.51 | 0.47 | 0.32** | 0.58 |

| Continued... | Emotional | | | Healthcare Avoidance | | | | | Trust |
|---|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|--|
| | Still sad (n=173) ^b | Still angry (n=173) | Still anxious (n=173) | Still depressed (n=173) | Still feeling abandoned or betrayed (n=173) | Avoid doctor involved in error (n=152) | Avoid facility involved in error (n=153) | Avoid medical care in general (n=165) | Less trusting of medical care after error (n=173) |
| Education level (reference = ≤ high school graduate) | | | | | | | | | |
| Associates degree or some college | 2.00 | 1.07 | 1.69 | 2.01 | 3.65** | 1.30 | 1.03 | 0.30** | 1.09 |
| College graduate | 0.96 | 0.65 | 1.36 | 0.34 | 2.36 | 1.94 | 1.30 | 0.35** | 1.04 |
| Postgraduate work | 2.99* | 0.79 | 1.27 | 1.15 | 6.16** | 1.16 | 1.13 | 0.38* | 1.23 |
| Female | 0.80 | 1.75 | 1.19 | 0.79 | 1.49 | 1.23 | 0.98 | 1.10 | 2.56** |
| Constant | 0.06** | 0.53 | 0.17** | 0.11** | 0.08** | 0.45 | 1.23 | 0.69 | 0.50 |

* $P \leq 0.10$, ** $P \leq 0.05$

^aThese models exclude 60 respondents who were not closely connected to the perceived medical error.

^bSample sizes vary due to respondents reporting "Don't know" or Refused or N/A

Table 11: Odds Ratio from Logistic Regression Predicting Persistent Impacts of Medical Error Including Apology Limited to Respondents Closely Connected to Error^a

| | Emotional | | | | | Healthcare Avoidance | | | Trust |
|--|-----------------------------------|------------------------|--------------------------|----------------------------|--|---|---|--|--|
| | Still sad (n=173) ^b | Still angry (n=173) | Still anxious (n=173) | Still depressed (n=173) | Still feeling abandoned or betrayed (n=173) | Avoid doctor involved in error (n=152) | Avoid facility involved in error (n=153) | Avoid medical care in general (n=165) | Less trusting of medical care after error (n=173) |
| Open communication (reference=No communication) | | | | | | | | | |
| 1-2 elements | 0.56 | 0.96 | 1.25 | 1.30 | 0.46 | 0.94 | 0.37* | 1.02 | 0.76 |
| 3-4 elements | 1.52 | 1.16 | 1.23 | 2.50 | 0.19** | 0.27** | 0.11** | 0.53 | 1.53 |
| 5-6 elements | 0.18* | 0.23* | 1.31 | 0.51 | 0.15* | 0.18** | 0.05** | 1.01 | 0.73 |
| Received apology (reference=no) | 0.55 | 0.58 | 0.33** | 0.35 | 0.12* | 0.38* | 0.83 | 0.40 | 1.13 |
| Medical error happened 3-6 years ago versus less than 3 years ago | 1.87 | 0.32** | 1.36 | 1.01 | 1.03 | 1.35 | 1.19 | 0.99 | 0.73 |
| Physical impact from error (reference = no impact) | | | | | | | | | |
| Somewhat or slightly impacted | 3.50* | 1.12** | 1.87 | 5.08** | 3.53* | 3.97** | 2.56* | 1.93 | 2.16* |
| Died, extremely or strongly impacted | 8.58** | 3.07** | 3.93** | 8.16** | 3.56** | 2.50* | 2.31 | 1.68 | 4.21** |
| Financial impact (reference = no impact) | | | | | | | | | |
| Reported finances impacted one way | 0.64 | 0.33* | 0.68 | 0.40 | 0.79 | 2.14 | 2.74* | 1.45 | 0.98 |
| Reported finances impacted ≥2 ways | 1.28 | 1.32 | 1.78 | 0.90 | 2.52 | 2.43* | 3.03** | 3.46** | 1.89 |
| Who experienced the error (ref=experienced error themselves)^{b0.97} | | | | | | | | | |
| Did not experience error but responsible for medical care of individual that experienced error | 1.87 | 0.74 | 0.70 | 0.94 | 0.45 | 1.80 | 1.72 | 0.82 | 0.97 |
| Did not experience error and not responsible for medical care of individual that experienced error | 0.94 | 0.98 | 0.32** | 0.25** | 0.20* | 0.53 | 0.47 | 0.33** | 0.57 |

| Continued... | Emotional | | | | | Health Care Avoidance | | | Trust |
|---|-----------------------------------|---------------------------|-----------------------------|-------------------------------|--|--|--|---|--|
| | Still sad (n=173) ^b | Still angry (n=173) | Still anxious (n=173) | Still depressed (n=173) | Still feeling abandoned or betrayed (n=173) | Avoid doctor involved in error (n=152) | Avoid facility involved in error (n=153) | Avoid medical care in general (n=165) | Less trusting of medical care after error (n=173) |
| Education level (reference = ≤ high school graduate) | | | | | | | | | |
| Associates degree or some college | 2.02 | 1.10 | 1.89 | 2.18 | 3.99** | 1.45 | 1.06 | 0.32** | 1.06 |
| College graduate | 1.03 | 0.67 | 1.55 | 0.40 | 2.67 | 2.11 | 1.32 | 0.37* | 1.02 |
| Postgraduate work | 2.96* | 0.76 | 1.31 | 1.1 | 6.23* | 1.22 | 1.14 | 0.39* | 1.22 |
| Female | 0.80 | 1.77 | 1.25 | 0.77 | 1.58 | 1.27 | 0.99 | 1.13 | 2.54** |
| Constant | 0.06** | 0.52 | 0.15** | 0.11** | 0.08** | 0.41 | 1.21 | 0.64 | 0.50 |

* $P \leq 0.10$, ** $P \leq 0.05$

^aThese models exclude 60 respondents who were not closely connected to the perceived medical error.

^bSample sizes vary due to respondents reporting "Don't know" or Refused or N/A

Appendix E: Massachusetts Medical Error Re-contact Survey

INTVLANG [INTVLANG] - Language of Interview

- 01 ENGLISH
- 02 SPANISH

Adult Respondents Age 18 and Older who live in Massachusetts and completed Q1012 and agreed to be re-contacted.

Quotas (Final N=700):

- N~350 who have had or someone in their household had a medical error in the past 6 years
- N~350 who have NOT had or someone in their household had a medical error in the past 6 years

**(PN: ANSWERING MACHINE MESSAGE SHOULD BE LEFT ON THE 1st CALL FOR THE CELL AND LL SAMPLES)
(ANSWERING MACHINE MESSAGE FOR LL AND CELL)**

VOICEMAIL [VOICEMAIL] Hello, I'm calling from SSRS on behalf of the patient safety agency of the Commonwealth of MA. I am calling because recently you were kind enough to participate in the Massachusetts Health Survey and said you were willing to be contacted about future studies. We would like to include your thoughts in a new survey. The purpose is to understand the experiences that Massachusetts residents have had with healthcare.

Your participation is voluntary and we will pay you \$10 for your time. Please call us toll-free at 844-284-9393 to participate.

(PN: START TIMER)

(ASK IF RESPONDENT NAME IS NOT MISSING)

INTRO1 [INTRO1] Hello. May I speak with {RESPONDENT NAME}?

- 01 IF ASKED "WHO'S CALLING?" [GO TO INTRO1a]
- 02 SUBJECT SPEAKING/COMING TO PHONE [GO TO VERIFY1]
- 03 SUBJECT LIVES HERE – NEEDS APPOINTMENT [SET APPOINTMENT]
- 04 SUBJECT KNOWN, LIVES AT ANOTHER NUMBER [COLLECT NEW NUMBER]
- 05 NEVER HEARD OF SUBJECT OR NO NUMBER [THANK AND TERM – CODE NON-LOCATABLE]
- 06 TELEPHONE COMPANY RECORDING [CODE NON-WORKING]
- 09 REFUSED [THANK AND TERM. CODE AS RQINTRO1]

IF INTRO1 = 01, GO TO INTRO1a

IF INTRO1 = 02, GO TO VERIFY1

(ASK IF RESPONDENT NAME IS MISSING OR INTRO1 =01)

INTRO1a [INTRO1a] Hi, I am calling on behalf of the XXXX XXXXXX XXXXX XXXXX XXXXX . I am calling because on {MHIS Interview Date} we spoke to a {female/male} who is {Respondent Age} years old who participated in the Massachusetts Health Survey and {she/he} said {she/he} would be willing to be contacted about future surveys. May I please speak with {her/him}?

| | | |
|----|--|--|
| 01 | SUBJECT SPEAKING | [GO TO VERIFY1] |
| 02 | SUBJECT COMING TO PHONE | [REPEAT INTRO1a] |
| 03 | SUBJECT LIVES HERE – NEEDS APPOINTMENT | [SET APPOINTMENT] |
| 04 | NEVER HEARD OF SUBJECT OR NO NUMBER | [THANK AND TERM – CODE NON-LOCATABLE] |
| 09 | REFUSED | [THANK AND TERM. CODE AS RQINTRO1a] |

IF INTRO1a = 01, GO TO ‘VERIFY1’

(ASK IF INTRO1=02 OR INTRO1a=01)

VERIFY1 [VERIFY1] Hi, my name is (INTERVIEWER NAME) from SSRS calling on behalf of the XXXXX XXXXX XXXXX XXXXX XXXXXXX. You previously participated in the Massachusetts Health Survey and said you would be willing to be contacted about future surveys.

[IF NEEDED: SSRS previously conducted the Massachusetts Health Survey]

I am calling because the XXXX XXXXX XXXXXXX XXXX XXXXXXX XXXXXXX is conducting a phone survey aimed at understanding the experiences that Massachusetts residents have had with healthcare. If you agree to complete the survey you will receive \$10 for your time.

This study is separate from the Massachusetts Health Survey which you completed earlier this year. Just to make sure that I'm speaking to the correct person, you are a {gender} age {Age}. Is that correct?

| | | |
|----|---------------------------------------|--|
| 01 | YES, CORRECT EXACT MATCH | [GO TO PN_CELL] |
| 02 | YES, CORRECT MATCH WITH QUALIFICATION | [NOTE QUALIFICATIONS AND GO TO PN_CELL] |
| 03 | NO, NOT CORRECT PERSON | [GO TO VERIFY2] |
| 99 | REFUSED | [THANK AND TERM. CODE AS RQVERIFY1] |

IF VERIFY1 = 1,2, GO TO PN_CELL

IF VERIFY1 = 99, THANK & TERM

(ASK IF VERIFY1=03 OR ALL AGE INFORMATION FROM MAIN CHIS IS DK OR REFUSED)

VERIFY2 [VERIFY2] Did you or another member of your household participate in the Massachusetts Health Survey?

[IF NEEDED: The Massachusetts Health Survey was a telephone survey that took about 20 minutes of your time. You were called by an interviewer, like myself, from SSRS in {Month and Year of MHIS Interview}. In the survey, you were asked questions about your health, the types of things you do to stay healthy, and your experiences in receiving care. Did we interview you or someone else in your household?]

| | |
|---|---|
| 01 YES RESPONDENT | [GO TO PN_CELL] |
| 02 YES ANOTHER HOUSEHOLD MEMBER | [ASK FOR OTHER HHM – GO TO INTRO1A] |
| 03 NO – NO ONE IN HOUSEHOLD WAS INTERVIEWED | [GO TO PROB – CODE FOR SUPERVISOR REVIEW] |
| 98 DON'T KNOW | [GO TO PROB – CODE FOR SUPERVISOR REVIEW] |
| 99 REFUSED | [GO TO PROB – CODE FOR SUPERVISOR REVIEW] |

IF VERIFY2 =01, GO TO PN_CELL

IF VERIFY2 =02, GO TO INTRO1a

(ASK IF VERIFY2=3,98,99)

PROB[PROB] We will check to make sure we called the right household. Thank you for your time. My supervisor may call back to verify the answers I have recorded. **[THANK & TERM]**

'PN_CELL' [PN_CELL] –

IF CELL = 1 THEN CONTINUE TO 'CELL1'

ELSE GO TO 'CONSENT_SCRIPT'

(ASK IF CELL=1)

CELL1[CELL1] Are you driving right now?

| | |
|----|---------|
| 01 | Yes |
| 02 | No |
| 99 | Refused |

IF CELL1 = 01,99 GO TO 'CELL2'

IF CELL1 = 02, GO TO 'CONSENT_SCRIPT'

(ASK IF CELL1=1,99)

CELL2[CELL2] When would be a better time to call you?

[IF RESPONDENT INDICATES THAT THEY ARE WILLING TO TALK NOW: "I'm sorry, but for your safety we're not able to do the interview while you're driving. When would be a better time to call you?"] **[SET CALLBACK]**
[THANK AND TERM]

(ASK IF (VERIFY1=01,02 OR VERIFY2=01) AND (CELL1=02 OR LL SAMPLE))

CONSENT_SCRIPT [CONSENT_SCRIPT] Before we get started, I am going to tell you more about the study.

First, your participation is voluntary.

Second, most of the questions I'll be asking you are new. But a few of the questions might sound familiar from the last time we called. We're repeating those questions to make sure that we understood your answers correctly then. We also want to give you the chance to answer differently if your thoughts or experiences have changed since last spring.

Last time, we talked about medical errors. Sometimes when people receive medical care, mistakes are made. Sometimes these mistakes result in no harm; other times, they may result in additional or prolonged treatment, disability, or death. These types of mistakes are called medical errors. I'd like to ask some questions about medical errors. If for any of these questions, you feel you haven't heard enough to have an opinion, just say so.

[INTERVIEWER NOTES]

[IF WANTS INFORMATION ABOUT RIGHTS OF RESEARCH SUBJECTS: Please contact the Office for the Protection of Research Subjects at 310-825-8714.]

(ASK ALL)

S1. In the past **six** years – that would be since about 2012 - was a medical error made (READ LIST)? [PN: Select all the apply]

- 01 In your own care
- 02 In the care of someone else living in your household
- 03 In the care of someone in your family living outside of the household
- 04 Someone else not in your family or not living in your household
- 05 Or was no medical error made
- 98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

If S1=01, 02, or 03 Qualify as Medical Error (GROUP=1)

If S1=04, 05 or 98 Qualify as Control (GROUP=2)

If S1=99 TERMINATE

(PN: END TIMER)

MAIN SURVEY

(PN: START TIMER)

(PN/INTERVIEWER IF AT ANY TIME IN THE Q'NAIRE THE RESPONDENT WANTS TO BE CALLED BACK OR SEEMS HESITANT TO CONTINUE [LIKELY TO REF TO CONTINUE, QUICKLY GO TO Q.42 AND ASK THAT QUESTION])

SECTION A: ABOUT THE MEDICAL ERROR

(ASK GROUP=1)

Q1. Did more than one medical error happen to you or a household or family member in the past **six** years?

01 Yes

02 No

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK Q1=1)

Though you've experienced more than one medical error, please think of the one you remember best when answering the next set of questions.

(ASK GROUP=1)

Q2 About how long ago did this medical error happen? Was it (READ LIST):

01 Less than a year ago

02 1 to 2 years ago

OR

- 03 3 to 6 years ago
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=1)

- Q3. Did the medical error happen to:
(READ LIST UNTIL RESPONSE IS ENDORSED)

- 01 You
- 02 Your spouse
- 03 Your child who lives in your home
- 04 Your child who lives outside of your home
- 05 A family member who is not your child or spouse [SPECIFY]_____
- 06 A person living in your home who is not related to you [SPECIFY]_____
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK Q3=2-99)

- Q3a. Were you responsible for making decisions about this person's care at the time the medical error occurred?

- 01 Yes
- 02 No
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=1)

- Q4. In your own words, could you tell me more about the medical error that happened?

(READ IF Q1=1, "Though you've experienced more than one medical error, please think of the one you remember best when answering the next set of questions.")

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

(INTERVIEWER: If respondent says "Don't know" or "Refused" say, "This information will be kept confidential. Any information you can provide will be extremely valuable. If you could tell me some information about what happened, who was involved, where the medical error occurred, and if you know, how or why it happened.")

(INTERVIEWER: Please probe until you have a good understanding of what the error was, and how it occurred.)

[PN Provide text box]

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK GROUP=1)

[PN: Pipe in "you" if Q3a=1 or Q3=1, pipe in "them" if Q3a=2,98,99]

Q4b. Did anyone at the place where the error occurred acknowledge to [you/them] that an error had occurred?

01 Yes

02 No

08 (DO NOT READ) Don't Know

09 (DO NOT READ) Refused

(IF Q4b = 02 OR 08, READ:)

That's just fine. Very often, patients experience a medical error that is not acknowledged by the healthcare professional or the facility involved. For all of the remaining questions, we will continue to refer to the events you described as "the medical error".

(READ IF Q4b=2,8,9)

For the rest of this survey, when we ask questions about the medical error, please think of the situation you just told us about.

(ASK GROUP=1 AND Q1 = 1)

Q5. What is it about this particular medical error that causes you to remember it the best? For example, is it because it was the most recent error, or the one that had the most serious consequences?

[PN Provide text box]

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK GROUP=1)

(INSERT "were you" IF Q3 = 1, "was the person this happened to" IF Q3 = 2-99)

Q6. Approximately how old [were you/was the person this happened to] when the medical error occurred?

(PROBE: Just your best guess is fine.)

(INTERVIEWER: If the respondent responds with a range, please enter the beginning of the range.)

[PN Provide Numeric response box that allow 1-80]

- 00 (DO NOT READ) Less than a year old
- 81 (DO NOT READ) 81 years or older
- 98 (DO NOT READ) DON'T KNOW
- 99 (DO NOT READ) REFUSED

(ASK GROUP=1)

Q7. What best describes the place where the medical error occurred?

(READ LIST UNTIL RESPONSE IS ENDORSED)

- 01 An emergency room
- 02 A hospital (INTERVIEWER NOTE: Not an emergency room)
- 03 A doctor's office or clinic
- 04 A nursing home or other long-term care facility
- 05 DELETED
- 06 A pharmacy
- 07 A dental office
- 08 At home
- OR
- 09 Somewhere else [SPECIFY] _____
- 98 (DO NOT READ) DON'T KNOW
- 99 (DO NOT READ) REFUSED

(ASK GROUP=1)

Q8. Did this medical error occur in Massachusetts?

- 01 Yes
- 02 No
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=1)

[PN: Pipe in “your” if Q3a=1 or Q3=1, pipe in “their” if Q3a=2,98,99]

- Q9. It is often difficult to determine why medical experiences turn out as they do. Please give us your best sense of what might have led up to the medical error you’ve been describing?

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: Was it something that the doctor did? Or other medical staff? Did something specific about [your/their] health situation contribute to the medical error happening?)

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

(INTERVIEWER: If the respondent says they are not sure the situation was a medical error say “Please think about the situation you described. Why do you think this happened?”

[PN Provide text box]

98 (DO NOT READ) Don’t Know

99 (DO NOT READ) Refused

(ASK GROUP=1)

- Q10. In your opinion, what if anything, could have been done differently to prevent this medical error from happening?

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: Could the doctor or other medical staff have done something either before the procedure or during? Could the place where the medical error occurred have done anything either before the procedure or during?)

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

[PN Provide text box]

98 (DO NOT READ) Don’t Know

99 (DO NOT READ) Refused

SECTION B: DISCOVERY OF AND RESPONSE TO THE MEDICAL ERROR**(ASK GROUP=1)****[PN: Pipe in “you” if Q3a=1 or Q3=1, pipe in “they/them/their” if Q3a=2,98,99]****[PN: Only show option 2 if Q7=1-7]**

- Q11. Which of the following best describes the way in which [you/they] first came to realize that a medical error happened?

01 [You/they] noticed that a medical error had been made

02 A healthcare professional such as a doctor, nurse, or other staff member at the place where the error occurred told [you/them]

03 Another healthcare professional told [you/them]

- 04 A family member or friend told [you/them]
 OR
 09 Some other way [SPECIFY]_____
- 98 (DO NOT READ) DON'T KNOW
 99 (DO NOT READ) REFUSED

(ASK GROUP=1)**[PN: Pipe in “you” if Q3a=1 or Q3=1, pipe in “they/them/their” if Q3a=2,98,99]**

Q12. Did [you/they] tell anyone outside of family and friends about the medical error?

- 01 Yes
 02 No
 98 (DO NOT READ) Don't Know
 99 (DO NOT READ) Refused

(ASK Q12=1)**[PN: Pipe in “you” if Q3a=1 or Q3=1, pipe in “they/them/their” if Q3a=2,98,99]****[PN: Randomize items a-f, keeping items a/b together]**

Q13. Did [you/they] [INSERT ITEM]?

- 01 Yes
 02 No
 98 (DO NOT READ) Don't Know
 99 (DO NOT READ) Refused
- a. Tell a healthcare professional, such as a doctor or nurse, at the place where the medical error occurred about the medical error
 b. Tell a healthcare professional, such as a doctor or nurse, **NOT** at the place where the medical error occurred about the medical error
 c. Tell an administrator at the place where the medical error occurred about the medical error
 d. Tell [your/their] health insurer about the medical error
 e. Report the medical error to a public or government agency
 f. Speak to a lawyer about what had happened

(ASK IF Q12=1)

[PN: Pipe in “you” if Q3a=1 or Q3=1, pipe in “they/them/their” if Q3a=2,98,99]

[PN: Randomize items a-d]

Q14. Did [you/they] tell someone about the medical error because [INSERT ITEM]?

[PN: For subsequent items read: “How about [INSERT ITEM] (IF NEEDED READ: “Did [you/they] tell someone about the medical error because [INSERT ITEM]”]

01 Yes

02 No

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

- a. [You/They] wanted the person responsible to be held accountable
- b. [You/They] wanted to prevent the same medical error from happening to someone else
- c. [You/They] were angry and wanted to get this off [your/their] chest
- d. [You/They] wanted someone to help [you/them] cope with the problems caused by the medical error
- e. Any other reason [SPECIFY]_____

(ASK Q12=2 and Q3a=2-99)

Q15. Do you know why no one besides family or friends was told about the medical error?

01 Yes

02 No

08 (DO NOT READ) Don't Know

09 (DO NOT READ) Refused

(ASK IF (Q12=2 AND (Q3a=1 or Q3=1)) OR (Q15=1))

[PN: Pipe in “you” if Q3a=1 or Q3=1, pipe in “they/them/their” if Q3a=2,98,99]

[PN: Only show item h if (Q3a=2,98,99)]

[PN: Randomize items a-i]

Q16. Would you say no one besides family or friends was told about the medical error because:

[PN: For subsequent items read: “How about [INSERT ITEM]”]

01 Yes

- 02 No
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

- a. [You/They] didn't know how to report a medical error
- b. [You/They] were afraid the doctor would stop treating [PN: EXCEPTION: Q3=1 "you"; Q3=2-9 "them"]
- c. [You/They] didn't want to offend anyone
- d. There was no way to report the medical error anonymously
- e. [You/They] didn't think it would do any good
- f. [You/They] didn't think the medical error was important
- g. [You/They] didn't want to get anyone in trouble
- h. You didn't think you could report a medical error for someone else
- i. [You/They] couldn't communicate what happened in English
- j. Any other reason [SPECIFY]_____

(ASK GROUP=1)**[PN: Pipe in "you" if Q3a=1 or Q3=1, pipe in "they/them/their" if Q3a=2,98,99]**

Q17. Did [you/they] receive an apology?

- 01 Yes
- 02 No
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK Q17=1)**[PN: Pipe in "you" if Q3a=1 or Q3=1, pipe in "they/them/their" if Q3a=2,98,99]**

Q18. Did you think the apology was sincere or did it feel insincere?

- 01 Sincere
- 02 Insincere
- 03 (DO NOT READ) I received both sincere and insincere apologies
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=1)

[PN: Pipe in “you” if Q3a=1 or Q3=1, pipe in “they/them/their” if Q3a=2,98,99]

[PN: Randomize items a-h, always show i last]

[PN: DISPLAY ITEMS g & h ONLY IF Q4b = 1]

Q19. Whether or not the care team members acknowledged a medical error, at any point after the medical error happened, did anyone on the care team or at the facility where the medical error occurred offer:

[PN: For subsequent items read: “How about (INSERT ITEM)? (IF NEEDED: At any point after the medical error happened, did anyone on the care team or at the facility where the medical error occurred offer (INSERT ITEM):”]

01 Yes

02 No

03 (DO NOT READ) Not applicable

08 (DO NOT READ) Don't Know

09 (DO NOT READ) Refused

- a. Psychological counseling, from a mental health professional
- b. Spiritual support, such as from a chaplain or other religious advisor
- c. Help from a social worker
- d. DELETED
- e. Help paying out of pocket or other medical costs
- f. Money to compensate [you/them] for injuries resulting from the medical error
- g. Information about a formal review or investigation to determine what caused the medical error
- h. An explanation of the actions they were taking to prevent similar medical errors from happening in the future
- i. Some other kind of help [SPECIFY]_____

(ASK IF ANY Q19=1)

[PN: Only show items selected at Q19 in the same order]

Q20. Was the [INSERT ITEM] helpful?

[PN: For subsequent items read: “How about (INSERT ITEM)? (IF NEEDED: Was the (INSERT ITEM) helpful”]

01 Yes

02 No

03 (DO NOT READ) I did not accept help

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

- a. Psychological counseling
- b. Spiritual support
- c. Help from a social worker
- d. DELETED
- e. Help paying out of pocket or other medical costs
- f. Money to compensate [you/them] for injuries resulting from the medical error
- g. Information about a formal review or investigation to determine what caused the medical error
- h. Explanation of the actions they were taking to prevent similar medical errors from happening in the future
- i. [INSERT SPECIFY FROM Q19]

(ASK GROUP=1)

[PN: Pipe in "you/me/I was/my/I" if Q3a=1 or Q3=1, pipe in "they/them/their/they were" if Q3a=2,98,99]

[PN ROTATE LIST 1-4/4-1; RANDOMIZE ITEMS a-f]

Q21. For the next few questions, when we ask about "anyone associated with the care team", we mean all of the medical professionals, such as doctors and nurses, as well as the staff at the place where the medical error took place, such as a hospital, nursing home, or doctors' office, whether they were directly involved in your care or not.

First/Next, (INSERT ITEM).

01 Yes

02 No

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

- a. Did anyone on the care team speak openly and truthfully about the medical error you have been describing to me
- b. Did anyone on the care team give [you/them] a chance to ask questions about the medical error
- c. Did anyone on the care team give [you/them] a chance to express feelings about the medical error
- d. Did anyone on the care team give [you/them] the information needed to understand how the medical error would affect [PN EXECPTION Q3=1 "your"; Q3=2-99 "their"] health
- e. Did anyone on the care team speak to [you/them] about the medical error in an easy to understand way
- f. Did [you/they] feel cared for by the care team

(ASK GROUP=1)**[PN: Pipe in “you” if Q3=1, pipe in “they” if Q3=2-99]**

- 21g. All in all, how satisfied were [you/they] about the way the care team communicated about the medical error?
Would you say...?

(READ LIST)

- 01 Completely satisfied
- 02 Somewhat satisfied
- 03 Somewhat dissatisfied
- 04 Not satisfied at all
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

SECTION C: IMPACT OF THE MEDICAL ERROR**(ASK GROUP=1)****[PN: Pipe in “you” if Q3=1, pipe in “they” if Q3=2-99]**

- Q22. Now I'm going to ask you some questions about the consequences of the medical error.

Did [you/they] need extra medical care, such as a longer stay in the hospital, rehabilitation services or extra doctor visits because of the medical error?

- 01 Yes
- 02 No
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=1)**[PN: Pipe in “your/you” if Q3=1, pipe in “their” if Q3=2-99]****[PN: Display code 04 only if referring to “other person” (Q3=2-99)]**

(INTERVIEWER NOTE: IF THE RESPONDENT HAS ALREADY SAID/INDICATED THAT THE PERSON DIED, DO NOT ASK THIS Q. ENTER CODE 4 AND CONTINUE)

- Q23. When the medical error occurred how was [your/their] physical health affected overall? Did [your/their] physical health (READ LIST)?

- 01 Stay the same

- 02 Get somewhat worse
- 03 Get much worse
- Or
- 04 Did they die
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK Q23=2,3)

[PN: Pipe in “your/you” if Q3=1, pipe in “their/they” if Q3=2-99]

Q24. How long was [your/their] physical health worse for (READ LIST):

- 01 Less than a week
- 02 More than a week but less than a month
- 03 More than a month but less than a year
- 04 More than a year, but [you/they] are recovered now
- OR
- 05 [Your/their] health is still being impacted
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK IF Q23 = 2,3)

[PN: Pipe in “you/your/me/I was/my/I” if Q3=1, pipe in “they/their/them/ their/they/they were” if Q3=2-99]

[PN ROTATE RESOPNSES 1-4/4-1]

Q25. Is (your/their) physical health (READ LIST)?

- 01 Extremely impacted
- 02 Strongly impacted
- 03 Somewhat impacted
- OR
- 04 Slightly impacted
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=1)

[PN: Pipe in “you/your/me/I was/my/I” if (Q3=1 or Q3a=1), pipe in “they/their/them/ their/they/they were” if Q3a=2,98,99]

[PN: Randomize items a-f]

Q26. Because of the medical error, were [your/their] household finances affected by (INSERT ITEM)?

[PN: For subsequent items read: “How about [INSERT ITEM]? (IF NEEDED READ: “Because of the medical error, were [your/their] household finances affected by (INSERT ITEM)?”)]

01 Yes

02 No

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

- a. Increased medical expenses
- b. Increased household expenses, such as for additional childcare, transportation, or housecleaning services
- c. Missed time at work
- d. Left a job for health reasons or to meet caregiver responsibilities
- e. Trouble paying bills
- f. A decrease in income
- g. Any other way [SPECIFY]_____

(ASK GROUP=1)

[PN RANDOMIZE ITEMS 1-7]

Q27. Now, thinking about the emotional impact of the error, did **you** experience any of the following feelings as a result of the medical error? (READ LIST)?

[PN: Select all that apply]

01 Sadness

02 Anger

03 Anxiety

04 Guilt

05 Depression

06 DELETED

07 Feelings that the doctors abandoned or betrayed you or your family

08 Any other feelings [SPECIFY]_____

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK Q27=1-8)

[PN ONLY SHOW ITEMS SELECTED AT Q26 IN SAME ORDER]

Q28. (IF MORE THAN ONE PIPED IN: "Which of the following") are you still experiencing (READ LIST)?

[PN: Select all that apply]

(INTERVIEWER NOTE: IF RESPONDENT SAYS "I STILL THINK ABOUT IT" THIS IS A "YES")

01 Sadness

02 Anger

03 Anxiety

04 Guilt

05 Depression

06 DELETED

07 Feelings that the doctors abandoned or betrayed you or your family

08 Any other feelings [SPECIFY] _____

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK GROUP=1)

(PN – PLEASE PROVIDE A TEXT BOX FOR "THE HARDEST PART" AND A SEPARATE TEXT BOX FOR "HOW IT AFFECTED YOUR LIFE AND HOW YOU COPE")

Q29. In your own words, what was the hardest part of your experience with this medical error? Please explain how it affected your life and how you coped with those effects.

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: Emotional, physical, life style changes, belief system changes, etc.?)

(INTERVIEWER: PLEASE MAKE SURE THAT YOU CAPTURE A RESPONSE FOR "THE HARDEST PART" AND A RESPONSE FOR "HOW IT AFFECTED YOUR LIFE AND HOW YOU COPE")

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

[PN Provide text box]

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

[PN: ROTATE Q30/Q31]

(ASK GROUP=1)

Q30. What, if anything, do you wish your care team had done to improve the situation following the medical error?

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: Think beyond just medical interventions. How about Interaction with the care team, the care team's response to the medical error, etc.?)

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

(INTERVIEWER IF NEEDED: When we ask about "care team" we mean the medical professionals such as doctors and nurses – as well as the staff at the place where the medical error took place – such as a hospital, nursing home, or doctors' office.

[PN Provide text box]

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK GROUP=1)

Q31. What things, if any, did your care team do following the medical error that made things worse?

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: Think beyond just medical interventions. How about Interaction with the care team, the care team's response to the medical error, etc.?)

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

(INTERVIEWER IF NEEDED: When we ask about "care team" we mean the medical professionals such as doctors and nurses – as well as the staff at the place where the medical error took place – such as a hospital, nursing home, or doctors' office.

[PN Provide text box]

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK GROUP=1)**[PN ROTATE OPTIONS 1-2/2-1]**

Q32. Following your experience with the medical error, do you feel (READ LIST)?

01 More trusting

02 Less trusting

03 or is there no change in the level of trust you feel when you receive healthcare

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

MOVE Q33 TO AFTER Q34

(ASK GROUP=1)

[PN: Pipe in “you/your/me/I was/my/I” if Q3=1, pipe in “they/their/them/ their/they/they were” if Q3=2-99]

[PN: Randomize items a-b; ROTATE RESPONSE OPTION 1-3/3-1]

Q34. Since the medical error occurred, how frequently have [you/they] **avoided** (INSERT ITEM)? Would you say (READ LIST)

[PN: For subsequent items read: “How about [INSERT ITEM]? (IF NEEDED READ: “How frequently have [you/they] **avoided** (INSERT ITEM)? Would you say (READ LIST?)”]

- 01 Never
- 02 Sometimes
- 03 Always
- 04 (DO NOT READ) Not applicable
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

- a. The doctor(s) involved in [PN EXCEPTION: Q3=1 “your”; Q3=2-9 “their”] care when the error occurred
- b. The healthcare facility where the error occurred
- c. Getting medical care in general

(ASK GROUP=1)

Q33. In your own words, how, if at all, did the experience of this medical error affect the ways in which you use the healthcare system?

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: Have your views on the healthcare system changed? Your interactions with care teams (in general and who was involved in the medical error?)

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

[PN Provide text box]

- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

[PN END TIMER]

[PN START TIMER]

(ASK ALL)**[PN: Pipe in “you/your/me/I was/my/I” if Q3=1, pipe in “they/their/them/ their/they/they were” if Q3=2-99]**

Q35. Please think about all medical errors that you are personally aware of – include any medical errors that happened to you personally at any time in your life, and to members of your family, friends, neighbors, co-workers, or others in your social network at any time. About how many medical errors are you aware of?

(DO NOT READ LIST)

- 01 None
- 02 One
- 03 2 to 5
- 04 Six or more
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK IF GROUP 2 AND Q35 = 02-04)

Q35a. Did any of those medical errors occur within the last six years?

- 1 Yes
- 2 No
- 8 (DO NOT READ) Don't know
- 9 (DO NOT READ) Refused

(PN – IF Q35a = 1, REASK QS1 AND FOLLOW-UP Qs ACCORDINGLY [DO NOT REASK Q35])**(ASK ALL)**

Thank you. Now I'm going to ask you a few questions about medical errors in general and some of your opinions about healthcare.

(ASK ALL)**[PN: ROTATE RESPONSE OPTION 1-4/4-1]**

Q36. How likely do you think it is that a medical error would occur when you receive healthcare in the future? Would you say it is (READ LIST)?

- 01 Very likely
- 02 Somewhat likely

- 03 Not too likely
- 04 Not at all likely
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK ALL)

Q37. **Generally speaking**, do you think medical errors are a problem in Massachusetts, or not?

(INTERVIEWER: IF RESPONDENT SAYS "THEY DO NOT THINK THEY ARE MORE OF A PROBLEM THAN ANYWHERE ELSE, SAY "IN GENERAL, DO YOU THINK MEDICAL ERRORS ARE A PROBLEM IN MASSACHUSETTS, OR NOT?")

- 01 Yes
- 02 No
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK Q37=1)

[PN: ROTATE RESPONSE OPTION 1-4/4-1]

Q37a. Do you think they are (INSERT LIST) problem?

(INTERVIEWER "IF A RESPONDENT SAYS IT VARIES BY MEDICAL ERROR, SAY "**IN GENERAL**, DO YOU THINK MEDICAL ERRORS ARE (INSERT LIST) PROBLEM?")

- 01 A very serious
- 02 A somewhat serious
- 03 A not too serious
- OR
- 04 Not at all a serious
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

(ASK GROUP=2)

[PN: Randomize items a-s; ROTATE RESPONSE OPTION 1-3/3-1]

Q38. I'm going to read you a list of some things that could lead to medical errors. For each one, please indicate whether you think it is (INSERT ROTATED RESPONSE OPTIONS) in causing medical errors.

[PN: For subsequent items read: "How about [INSERT ITEM]? (IF NEEDED READ: "Is (INSERT ITEM) (INSERT ROTATED LIST) in causing a medical error?"]

01 A major factor

02 A minor factor

OR

03 Not at all a factor

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

- a. Doctors and nurses who are poorly trained
- b. Patients not being able to see their own medical records
- c. Doctors or nurses not listening to patients, or ignoring patients' concerns
- d. Emergency rooms being overcrowded
- e. Doctors and medical staff not washing their hands or wearing masks
- f. Hospitals or medical offices not being organized well enough to make sure patients don't get the wrong drug or the wrong dose of a drug
- g. Doctors and medical staff not speaking a patient's language
- h. Doctors and nurses who are overworked, stressed, or tired
- i. Doctors or nurses who don't care about their patients
- j. Doctors or other staff not knowing about the medical care that a patient received somewhere else
- k. Patients being given too many tests or drugs they don't need
- l. Doctors and nurses not discussing treatment choices with patients
- m. Doctors and nurses not checking in with patients after sending them home
- n. Doctors and nurses who are careless
- o. Medical care being very complicated
- p. Patient medical records that are out-of-date or incorrect
- q. Doctors and nurses not clearly explaining follow up care instructions to patients
- r. Doctors and other staff in a hospital or medical office not working together or communicating well as a team
- s. Doctors not spending enough time with patients

[PN ROTATE Q39 AND Q40]

(ASK ALL)

[PN: Randomize items a-d; ROTATE RESPONSE OPTION 1-5/5-1]

Q39. Now I am going to read a series of statements. For each one, tell me whether you (INSERT ROTATED RESPONSE OPTIONS).

(INSERT ITEM). Do you (INSERT ROTATED RESPONSE OPTIONS)?

[PN: For subsequent items read: "(INSERT ITEM)." (IF NEEDED READ "Do you (INSERT ROTATED RESPONSE OPTIONS)?")]

- 01 Strongly agree
- 02 Somewhat agree
- 03 Neither agree nor disagree
- 04 Somewhat disagree
- OR
- 05 Strongly disagree
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

- a. The **hospitals** I go to do everything they can to prevent medical errors
- b. The **doctors** I go to do everything they can to prevent medical errors
- c. When medical errors happen, there is usually nothing that could have been done to prevent them
- d. DELETED

(ASK ALL)

[PN: Randomize items b-g; ROTATE RESPONSE OPTION 1-5/5-1]

Q40. How often do you think (INSERT ITEM)? Would you say (READ LIST)?

[PN: For subsequent items read: "How about (INSERT ITEM)." (IF NEEDED READ "How often do you think (INSERT ITEM)? Would you say (READ LIST)?")]

- 01 Always
- 02 Often
- 03 Sometimes
- 04 Rarely
- OR
- 05 Never
- 98 (DO NOT READ) Don't Know
- 99 (DO NOT READ) Refused

- a. DELETED
- b. Doctors care more about their patients' medical needs than what is convenient for them
- c. Doctors are extremely thorough and careful
- d. You can completely trust doctors' decisions about which medical treatments are best
- e. Doctors are totally honest in telling their patients about all of the different treatment options available for their conditions
- f. DELETED
- g. Doctors pay full attention to what patients are trying to tell them
- h. DELETED

(ASK ALL)

Q41. (GROUP=1: Would you like to share anything further on what you think could be done to prevent the kind of error(s) that happened to [Q3=1 "you"; Q3=2-9 "your family or friend"] or to make healthcare safer?

GROUP=2: Would you like to share any further thoughts on what you think could be done to prevent medical errors and make healthcare safer?)

(PROBE IF RESPONDENT DOES NOT PROVIDE DETAILED INFORMATION: At the care team level? At an institution level? At a more global or governmental level?)

(INTERVIEWER: RECORD RESPONSE VERBATIM, PROBE FOR CLARITY & TO THE NEGATIVE)

01 Yes [SPECIFY]_____

02 No

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK ALL)

Q42. One last thing, I want you to know that we are doing this survey on behalf of the XXXXX XXXXX XXXXX XXXXX XXXXX. That's a XXXXXXX XXXXX XXXX working to make healthcare safer. Their staff may want to be in touch with you to hear more about your thoughts on healthcare safety and quality. To do that, they would need your contact information, which they would keep confidential. May we share your information with the XXXX XXXX XXXX?

01 Yes

02 No

98 (DO NOT READ) Don't Know

99 (DO NOT READ) Refused

(ASK ALL)

Q43. That's the end of the interview. We'd like to send you \$10 for your time. Can I please have your full name and a mailing address where we can send you the money?

(INTERVIEWER NOTE: If R does not want to give full name, explain we only need it so we can send the \$10 to them personally.)

1 [ENTER FULL NAME] – INTERVIEWER: PLEASE VERIFY SPELLING

2 [ENTER MAILING ADDRESS]

3 [CITY]

4 [STATE]

5 [ZIP CODE]

9 (DO NOT READ) Refused