| **#** | **Time period** | **Unit of analysis** | **Stakeholder involved** | **Privacy and/or security concerns** | **Trust in electronic medium** | **Requesting stakeholder** | **Intended purpose of information request** | **Emotions** | **Cause** | **Effect** | **Source** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Present | Individual | Patient & caregivers | For many people (many rugged individuals) in the US data movement and data ubiquity is not a good thing |  |  |  |  |  |  | CS1\_DI, Pos. 18/370-384 |
| 2 | Past | Organization | Providers | Over-interpretation of the application of HIPAA to the movement of data to treat healthcare, despite government and legislature stating repeatedly that the payment and treatment of healthcare are safe harbors around the movement of healthcare data |  |  |  |  | [It’s not in the StakeAlign / Problems in governmental regulations category / dimension as the federal agencies repeatedly clarify this misinterpretation] | Data for the treatment of healthcare is not shared | CS1\_DI, Pos. 18/411-428 |
| 3 |  |  |  |  |  |  |  |  |  |  |  |
| 4 | Past | System |  | Core business model was threatened (VRS providers) |  |  |  |  | [See Ex\_RiskTrust#3] | [See Ex\_FacilCon#2] | ETC1\_DI, Pos. 34 |
| 5 | Present | System |  | Fear of losing business intelligence |  |  |  |  |  | [[Success factor[Need to solve a problem that requires consensus, that everyone involved/affected shares equally, and that no one really wants to own internally]] | ETC1\_DI, Pos. 48 |
| 6 | Present | Individual | Patients | Digital trust of patients starts to be compromised |  |  |  |  | Patients feel shadowed | Patient stop participating in patient engagement programs | PYV1\_DI, Pos. 32-34 |
| 7 | Present | Individual | Patients | Digital trust of patients starts to be compromised |  |  |  |  | “You just shadow me; you just didn’t know that I actually did sip a little bit more of wine there or had a smoke here and all that and then you go and crack my premium up and all that. No, no, you guys just surveil me. I don’t want to have anything to do with it. I’ll come to you, and I need to come to you, and that’s it, and make a phone call to schedule and all this [quote].” | Patients move away from digital medium increasingly and go back to the old-school way of making phone calls to schedule a meeting | PYV1\_DI, Pos. 32-34 |
| 8 | Present | Organization | Providers (large health systems) |  |  |  |  | Strongly believe that they have built knowledge internally that gives them a competitive advantage | Development of medical Centers of Excellence | [See Ex\_Fin#10] | CS2\_A2\_DI, Pos. 8 |
| 9 |  |  |  |  |  |  |  |  |  |  |  |
| 10 | Present | Organization | Providers | Providers, in particular the front office staff, see a risk of being sued for improperly sharing clinical data |  |  |  |  | [See Ex\_SystemChar#16] | They do not want to share clinical data | CS2\_A2\_DI, Pos. 34 |
| 11 | Present | Individual |  | Many physicians do not accept emails of clinical data, but they’ll take anything via fax |  |  |  |  |  |  | CS2\_A2\_DI, Pos. 34 |
| 12 |  |  |  |  |  |  |  |  |  |  |  |
| 13 | Present | Organization |  | Hospitals are apprehensive about letting new applications be part of their system |  |  |  |  |  |  | PV1\_DI, Pos. 4 |
| 14 | Present | Individual | Patients | Many patients do not want their health data to be recorded in the EMR and to be shared with other HC stakeholders, e.g., payers |  |  |  |  | On the EMR data analytics used for decision-making on reimbursement of treatment and future access to treatment | [See Ex\_RiskTrust#15] | PV3\_ETC2\_DI, Pos. 35 |
| 15 | Present | Individual | Patients | Patients lie to the physicians about their conditions or causes of why something happened |  |  |  |  | [See Ex\_RiskTrust#14] | They do not receive the adequate care | PV3\_ETC2\_DI, Pos. 35 |
| 16 | Present | Individual | Physicians |  |  |  |  | Physicians do not trust the EMR systems | It did not work as it was supposed to work | They write it off | HITV1\_DI, Pos. 22 |
| 17 | Present | System |  |  |  |  |  | The industry has a tremendous mistrust of any data that they didn’t originate | |See Ex\_TechPerf#49] | Even if the data flows, externally generated data but quarantined in a special holding place | CS1\_DI, Pos. 45, 1035-1085 |
| 18 | Present | System |  | People are petrified of HIPAA penalties and violating the law |  |  |  |  | “And so, my analogy of the game of bowling is there’s a penalty for the ball going in the gutter on the right there is no penalty for the ball going in the gutter on the left. So, everybody just constantly throws the ball to the left gutter to make sure that they avoid the penalty. Until there’s a mandate to say avoid both gutters equally, get the ball down the middle. We can’t expect people to try to get the ball down in the middle [quote].” | People do everything to avoid them, such as under-matching identity data | CS1\_DI, Pos. 45, 1085-1116 |
| 19 | Present | Individual | Patients |  |  | Trusts her physician more than insurance and pharmaceutical companies |  | [See Ex\_RiskTrust#20] |  |  | P1\_DI, Q16\_9 |
| 20 | Present | Individual | Patients |  |  |  |  | She feels okay about her own health |  |  | P1\_DI, Q13 |
| 21 | Present | Individual | Patients | He is generally fine with sharing information, but it heavily depends on what information is requested |  |  |  | [See Ex\_RiskTrust#22] |  |  | P21\_DI, Q16\_9 |
| 22 | Present | Individual | Patients |  |  |  |  | Solid but could be better |  |  | P21\_DI, Q13 |
| 23 | Present | Individual | Patients | It is getting easier for data to be leaked |  |  |  | [See Ex\_RiskTrust#24] |  | Does not trust with information shared with the primary physician | P15\_DI, Q17\_1-Q17\_8 |
| 24 | Present | Individual | Patients |  |  |  |  | She feels challenged by current state of health |  |  | P15\_DI, Q13 |
| 25 | Present | Individual | Patients |  |  | Trusts organization she knows well e.g., primary care physician, more than organization she knows less well e.g., specialists with personal health information |  | [See Ex\_RiskTrust#26] |  |  | P12\_DI, Q17\_2 |
| 26 | Present | Individual | Patients |  |  |  |  | Feels frustrated and wants to be better physically |  |  | P12\_DI, Q13 |
| 27 | Present | Individual | Patients | Afraid of data leaks |  | Does not trust hospitals with personal health information |  | [See Ex\_RiskTrust#28] |  |  | P5\_DI, Q17\_3 |
| 28 | Present | Individual | Patients |  |  |  |  | Feels content with current state of health |  |  | P5\_DI, Q13 |
| 29 | Present | Individual | Patients |  |  | Does not trust payers with personal health information |  | [See Ex\_RiskTrust#33] | They are more out for their own interest, i.e., profit generation |  | P19\_DI, Q17\_4 |
| 30 | Present | Individual | Patients | Afraid of data leaks |  | Does not trust hospitals, health app providers, manufacturers, pharmacies, federal agencies with personal health information |  | [See Ex\_RiskTrust#31] | Might be using old systems that are easy to get compromised |  | P17\_DI, Q17\_3-Q17\_8 |
| 31 | Present | Individual | Patients |  |  |  |  | Feels okay with current health, it could use some improvement in terms of procedures to carry and diets, but happy overall with it |  |  | P17\_DI, Q13 |
| 32 | Present | Individual | Patients |  |  | Trust hospitals less than individual healthcare providers with personal health information |  | [See Ex\_RiskTrust#33] | Hospitals can be vulnerable to cyber-attacks |  | P19\_DI, Q17\_3 |
| 33 | Present | Individual | Patients |  |  |  |  | Feels satisfied but could always do better |  |  | P19\_DI, Q13 |
| 34 | Present | Individual | Patients |  |  | Does not trust payers with personal health information |  | [See Ex\_RiskTrust#28] | They are more out for their own interest, i.e., profit generation |  | P5\_DI, Q17\_4 |
| 35 | Present | Individual | Patients |  |  |  |  | Feels content about present state of health |  |  | P11\_DI, Q13 |
| 36 | Present | Individual | Patients |  |  | Does not trust payers with personal health information |  | [See Ex\_RiskTrust#37] | They are more out for their own interest, i.e., profit generation |  | P7\_DI, Q17\_4 |
| 37 | Present | Individual | Patients |  |  |  |  | Feels pretty good with current state of health |  |  | P7\_DI, Q13 |
| 38 | Present | Individual | Patients |  |  | Does not trust payers with personal health information |  | [See Ex\_RiskTrust#39] |  |  | P9\_DI, Q17\_4 |
| 39 | Present | Individual | Patients |  |  |  |  | Feels satisfied with current state of health |  |  | P9\_DI, Q13 |
| 40 | Present | Individual | Patients |  |  | Does not trust payers with personal health information |  | [See Ex\_RiskTrust#41] | Have never been able to provide her with adequate healthcare |  | P10\_DI, Q17\_4 |
| 41 | Present | Individual | Patients |  |  |  |  | Feels disappointed, sad, and worrisome with current state of health |  |  | P10\_DI, Q13 |
| 42 | Present | Individual | Patients |  |  | Does not trust payers with personal health information |  |  | They are more out for their own interest, i.e., profit generation |  | P12\_DI, Q17\_4 |
| 43 | Present | Individual | Patients |  |  |  |  | Feels frustrated with current state of health, wants to be better physically |  |  | P12\_DI, Q13 |
| 44 | Present | Individual | Patients |  |  | Trusts health app providers the least with personal health information |  | [See Ex\_RiskTrust#28] |  | Tries to avoid giving them information | P5\_DI, Q17\_5 |
| 45 | Present | Individual | Patients |  |  | Does not trust health app providers with personal health information |  | [See Ex\_RiskTrust#37] |  |  | P7\_DI, Q17\_5 |
| 46 | Present | Individual | Patients |  |  | Does not trust health app providers with personal health information |  | [See Ex\_RiskTrust#39] |  | Only provides the minimum of information and if the information is too sensitive, she does not use it | P9\_DI, Q17\_5 |
| 47 | Present | Individual | Patients |  |  | Does not trust health app providers with personal health information |  | [See Ex\_RiskTrust#41] |  | Does not use them | P10\_DI, Q17\_5 |
| 48 | Present | Individual | Patients |  |  | Does not trust health app providers with personal health information |  | [See Ex\_RiskTrust#35] | There is controversy around them |  | P11\_DI, Q17\_5 |
| 49 | Present | Individual | Patients |  |  | Does not trust health app providers, payers, manufacturers with personal information |  | [See Ex\_RiskTrust#33] | They are only out for their own interest, i.e., profit generation and leverage the personal information for that |  | P19\_DI, Q17\_5;  P19\_DI, Q18 |
| 50 | Present | Individual | Patients |  |  | Does not trust manufacturers with personal information |  | [See Ex\_RiskTrust#20] |  |  | P1\_DI, Q17\_6 |
| 51 | Present | Individual | Patients |  |  | Does not trust manufacturers with personal information |  | [See Ex\_RiskTrust#28] | They are more out for their own interest, i.e., profit generation |  | P5\_DI, Q17\_6 |
| 52 | Present | Individual | Patients |  |  | Does not trust manufacturers with personal information |  | [See Ex\_RiskTrust#37] | They have a bad reputation for having morals as shown in the media |  | P7\_DI, Q17\_6;  P7\_DI, Q18 |
| 53 | Present | Individual | Patients |  |  | Does not trust manufacturers with personal information |  | [See Ex\_RiskTrust#39] |  | Still gives them the information needed | P9\_DI, Q17\_6 |
| 54 | Present | Individual | Patients |  |  | Does not trust manufacturers with personal information |  | [See Ex\_RiskTrust#43] | They are more out for their own interest, i.e., profit generation |  | P12\_DI, Q17\_6 |
| 55 | Present | System | Health IT vendors | Health IT vendors do not want to provide other parties access to their systems |  |  |  |  | [See Ex\_OrgInnov#9] | [See Ex\_TechPerf#26] | PV1\_DI, Pos. 4 |
| 56 |  |  |  |  |  |  |  |  |  |  |  |
| 57 | Present | Individual | Patients |  |  | Does not trust manufacturers with personal information and drug ingredients |  | [See Ex\_RiskTrust#58] |  |  | P14\_DI, Q17\_6 |
| 58 | Present | Individual | Patients |  |  |  |  | Feels just fine with her current state of health |  |  | P14\_DI, Q13 |
| 59 | Present | Individual | Patients |  |  | Does not trust pharmacies with personal health information |  | [See Ex\_RiskTrust#28] | Data leaks |  | P5\_DI, Q17\_7 |
| 60 | Present | Individual | Patients |  |  | Does not trust pharmacies with personal health information |  | [See Ex\_RiskTrust#39] | Found out that CVC kept her credit card info on file and makes her wonder what other information they gather without her consent | Still provides the necessary information | P9\_DI, Q17\_7 |
| 61 | Present | Individual | Patients |  |  | Trusts federal agencies less than physicians or payers |  | [See Ex\_RiskTrust#62] | Federal agencies are notoriously inefficient |  | P4\_DI, Q17\_7 |
| 62 | Present | Individual | Patients |  |  |  |  | Feels cautious about not feeling too optimistic about own personal health |  |  | P4\_DI, Q13 |
| 63 | Present | Individual | Patients |  |  | Does not trust federal agencies with personal health information |  | [See Ex\_RiskTrust#41] | Have never been able to approve good healthcare for her |  | P10\_DI, Q17\_7 |
| 64 | Present | Individual | Patients |  |  | Does not trust federal agencies with personal health information |  | [See Ex\_RiskTrust#65] | Government workers do not care about other people’s problems |  | P18\_DI, Q17\_7 |
| 65 | Present | Individual | Patients |  |  |  |  | Feels good about own personal health which improved sigificantly |  |  | P18\_DI, Q13 |
| 66 | Present | Individual | Patients |  |  | Does not trust federal agencies with personal health information |  | [See Ex\_RiskTrust#67] | Does not know what they do with the information |  | P24\_DI, Q17\_7 |
| 67 | Present | Individual | Patients |  |  |  |  | Feels happy about current health status but strives to do better |  |  | P24\_DI, Q13 |
| 68 | Present | Individual | Patients |  |  | Does not trust federal agencies with personal health information |  | [See Ex\_RiskTrust#69] | She is not dealing with them |  | P25\_DI, Q17\_7 |
| 69 | Present | Individual | Patients |  |  |  |  | Feels happy about own health status and she eats very healthy |  |  | P25\_DI, Q13 |
| 70 | Present | Individual | Patients | Many organizations care just about their bottom line |  |  |  | [See Ex\_RiskTrust#20] |  | Trusts those organization less with personal health information | P1\_DI, Q18 |
| 71 | Present | Individual | Patients | You never know whether there will be a data leak |  |  |  | [See Ex\_RiskTrust#28] | Has heard about it a lot in the news |  | P5\_DI, Q18 |
| 72 | Present | Individual | Patients |  |  | Trust healthcare providers most with personal health information |  | [See Ex\_RiskTrust#73] | He is bound by law and ethics | Is wary of agencies selling my information and of security breaches that may happen at some places more than others. | P16\_DI, Q18 |
| 73 | Present | Individual | Patients |  |  |  |  | He feels okay about his present state of health but is not where he would like to be |  |  | P16\_DI, Q13 |
| 74 | Present | Individual | Patients | Does not trust an organization if the public reputation and perception is bad with personal health information |  |  |  | [See Ex\_RiskTrust#35] |  |  | P11\_DI, Q18 |
| 75 | Present | Individual | Patients | Does not trust an organization if the public reputation and perception is bad with personal health information |  |  |  | [See Ex\_RiskTrust#58] |  |  | P14\_DI, Q18 |
| 76 | Present | Individual | Patients |  |  | Does not trust any organization with personal health information |  | [See Ex\_RiskTrust#24] |  |  | P15\_DI, Q18 |
| 77 | Present | Individual | Patients | If the requesting stakeholder has no authority he does not trust them with personal health information |  |  |  | [See Ex\_RiskTrust#78] |  |  | P20\_DI, Q18 |
| 78 | Present | Individual | Patients |  |  |  |  | Feels happy/ecstatic about his own present state of health |  |  | P20\_DI, Q13 |
| 79 | Present | Individual | Patients |  |  | If he has no shared history with the organization he does not trust them with her personal health information |  | [See Ex\_RiskTrust#78] |  |  | P20\_DI, Q23 |
| 80 | Present | Individual | Patients | Feels most vulnerable to fraud in the area of medical information security |  |  |  | [See Ex\_RiskTrust#62] | He was a victim of identity theft before | Is afraid that is information is used by someone else and he would be liable for someone else’s medical expenses | P4\_DI, Q23 |
| 81 | Present | Individual | Patients |  |  |  |  | Feels uncomfortable about her physician seeing all her medical history |  |  | P9\_DI, Q23 |
| 82 | Present | Individual | Patients |  | There is often no choice of whether to trust a certain electronic medium if one cannot get the service required otherwise |  |  | [See Ex\_RiskTrust#83] |  |  | P3\_DI, Q21 |
| 83 |  |  |  |  |  |  |  |  |  |  |  |
| 84 | Present | Individual | Patients |  | Trusts in electronic medium if the website provides data security information |  |  | [See Ex\_RiskTrust#83] |  |  | P3\_DI, Q21 |
| 85 | Present | Individual | Patients |  | Trusts in electronic medium if complex security measures are required e.g., complex passwords or two-factor authentication |  |  | [See Ex\_RiskTrust#62] |  |  | P4\_DI, Q21 |
| 86 | Present | Individual | Patients |  | Trusts in electronic medium if she heard anything about the technology |  |  | [See Ex\_RiskTrust#28] |  |  | P5\_DI, Q21 |
| 87 | Past | Individual | Patients |  | Trusts in electronic medium if she previously used the technology |  |  | [See Ex\_RiskTrust#28] |  |  | P5\_DI, Q21 |
| 88 | Present | Individual | Patients |  | Trusts in electronic medium if it is difficult for someone to log in that is not her |  |  | [See Ex\_RiskTrust#28] |  |  | P5\_DI, Q21 |
| 89 | Present | Individual | Patients |  | Trusts in electronic medium if it has a multi-step log in |  |  | [See Ex\_RiskTrust#90] |  |  | P6\_DI, Q21 |
| 90 | Present | Individual | Patients |  |  |  |  | Feels content with her current health status |  |  | P6\_DI, Q13 |
| 91 | Present | Individual | Patients |  | Trusts in electronic medium if it has it clearly connected to the office facility she is trying to use |  |  | [See Ex\_RiskTrust#90] |  |  | P6\_DI, Q21 |
| 92 | Present | Individual | Patients |  | Trusts in electronic medium if it is password protected |  |  | [See Ex\_RiskTrust#37] |  |  | P7\_DI, Q21 |
| 93 | Present | Individual | Patients |  | Trusts in electronic medium if the staff handling it seems qualified/capable |  |  | [See Ex\_RiskTrust#37] |  |  | P7\_DI, Q21 |
| 94 | Present | Individual | Patients |  | Trusts in electronic medium if the terms and conditions are appropriate |  | Trusts in an electronic medium if it the information requested is for the right purpose | [See Ex\_RiskTrust#95] |  |  | P8\_DI, Q21 |
| 95 | Present | Individual | Patients |  |  |  |  | Feels neutral about his/her current state of health |  |  | P8\_DI, Q21 |
| 96 | Present | Individual | Patients |  | Trusts in electronic medium if it has no negative public reputation / has not been covered in the news negatively |  |  | [See Ex\_RiskTrust#39] |  |  | P9\_DI, Q21 |
| 97 | Present | Individual | Patients |  | Trusts in electronic medium if it has no negative reputation within his family |  |  | [See Ex\_RiskTrust#39] |  |  | P9\_DI, Q21 |
| 98 | Present | Individual | Patients |  | Trusts in electronic medium if it has no negative public reputation |  |  | [See Ex\_RiskTrust#41] |  |  | P10\_DI, Q21 |
| 99 | Past | Individual | Patients |  | Trusts in electronic medium if others had a good experience with it |  |  | [See Ex\_RiskTrust#41] |  |  | P10\_DI, Q21 |
| 100 | Present | Individual | Patients |  | Trusts in electronic medium if it has no negative public reputation / has not been covered in the news negatively |  |  | [See Ex\_RiskTrust#35] |  |  | P11\_DI, Q21 |
| 101 | Past | Individual | Patients |  | Trusts in electronic medium if she previously used the technology and had a good experience |  |  | [See Ex\_RiskTrust#35] |  |  | P11\_DI, Q21 |
| 102 | Present | Individual | Patients |  | Trusts in electronic medium if the technology has proven reliable |  |  | [See Ex\_RiskTrust#103] |  |  | P13\_DI, Q21 |
| 103 | Present | Individual | Patients |  |  |  |  | He is a work in progress in terms of his present state of health and it is important to him to acknowledge that progress |  |  | P13\_DI, Q13 |
| 104 | Present | Individual | Patients |  | There is often no choice of whether to trust a certain electronic medium if one cannot get the service required otherwise |  |  | [See Ex\_RiskTrust#73] |  |  | P16\_DI, Q21 |
| 105 | Present | Individual | Patients |  | Does not trust in a legacy electronic medium |  |  | [See Ex\_RiskTrust#106] |  |  | P17\_DI, Q21 |
| 106 | Present | Individual | Patients |  |  |  |  | He feels okay with his current state of health but could use some improvement in terms of procedures to carry and diets |  |  | P17\_DI, Q13 |
| 107 | Present | Individual | Patients |  | There is often no choice of whether to trust a certain electronic medium if one cannot get the service required otherwise |  |  | [See Ex\_RiskTrust#65] |  |  | P18\_DI, Q21 |
| 108 | Present | Individual | Patients |  | Trusts in an electronic medium if the track history of those in charge of said technology is fine |  |  | [See Ex\_RiskTrust#33] |  |  | P19\_DI, Q21 |
| 109 | Present | Individual | Patients |  | Trusts in an electronic medium depending on the company’s business model and goals |  |  | [See Ex\_RiskTrust#33] |  |  | P19\_DI, Q21 |
| 110 | Present | Individual | Patients |  | Trusts in an electronic medium only if the family has been using it before |  |  | [See Ex\_RiskTrust#78] |  |  | P20\_DI, Q21 |
| 111 | Past | Individual | Patients |  | Trusts in an electronic medium if people in his surrounding have had past experience with that medium |  |  | [See Ex\_RiskTrust#22] |  |  | P21\_DI, Q21 |
| 112 | Present | Individual | Patients |  | Trusts in an electronic medium if he gets to select that his data cannot be sold to anyone |  |  | [See Ex\_RiskTrust#67] |  |  | P24\_DI, Q21 |
| 113 | Present | Individual | Patients |  | Trusts in electronic medium if there is two-factor authentication |  |  | [See Ex\_RiskTrust#69] |  |  | P25\_DI, Q21 |