

Thoughts on addressing the clinician burden issue

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Introduction

The HL7 Reducing Clinician Burden project has reviewed literature on the stress factors related to the use of information technology in health care. There appears to be no single source of trouble which could be solved easily. The work of clinicians varies a lot and different professional groups have different IT related sources of harmful stress. This means that the remedies are also needed from different sources. The health IT standardization community can only contribute to a limited share of these remedies and therefore the project team should not hide the results of this investigation from those other actors who should also take their share of the alleviation tasks to their to-do lists.

Physician computer use

Figure 1 shows how the time of the physicians is divided into three different task categories in electronic health record (HER) use. Although the time use profile of every clinician is not the same, some conclusions can be drawn from this figure anyway.

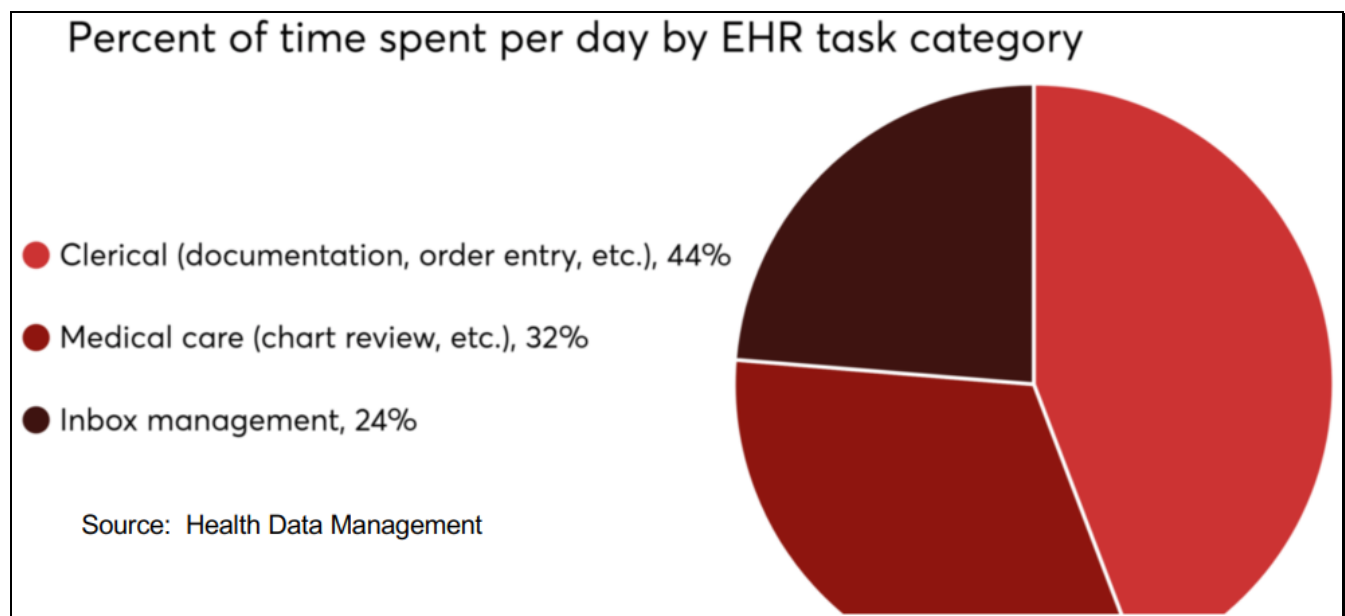


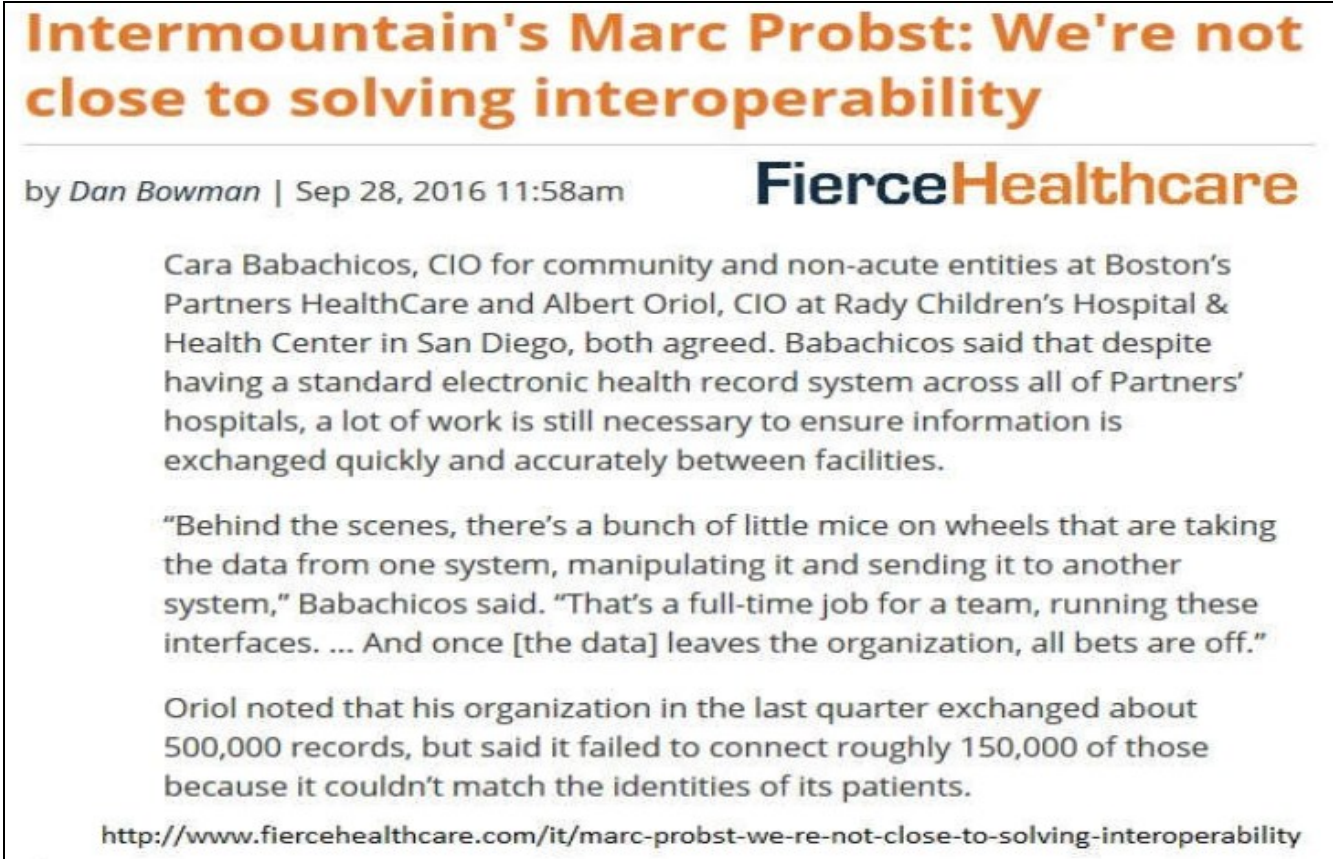
Figure 1. How physicians use their computers.

The motivation to become a physician is related to the will to deliver medical care to the patients. If computers contribute to this goal, they are considered useful but if they take time away from this, they are considered burdensome. Figure 1 shows that around one third of the time is related to medical care, e.g. for searching information which supports diagnoses or treatment. Computer systems designed for this purpose can, of course, be streamlined for this purpose even more than at present but this share of the pie could be

considered as productive computer use. Interoperability challenges may sometimes prevent the clinicians from (efficiently) getting all the patient related information they need at the point of decision (Figure 2).

The largest portion of the time is spent in the clerical category, e.g. documenting the work for the benefit of other health care personnel or for administrative purposes. The larger the proportion of the work is related to administrative tasks, the more the clinicians feel that they are “serving the system” instead of the system to support their work. At least a part of the inbox management share of the pie belongs to this serving-the-system class, as well.

The literature survey identified also a number of usability problems in the EHR systems. The EHR providers have not always been able to capture the use and work flow requirements for their EHR systems correctly or they have not been addressed sufficiently to reduce system production costs.



Intermountain's Marc Probst: We're not close to solving interoperability

by *Dan Bowman* | Sep 28, 2016 11:58am **FierceHealthcare**

Cara Babachicos, CIO for community and non-acute entities at Boston's Partners HealthCare and Albert Oriol, CIO at Rady Children's Hospital & Health Center in San Diego, both agreed. Babachicos said that despite having a standard electronic health record system across all of Partners' hospitals, a lot of work is still necessary to ensure information is exchanged quickly and accurately between facilities.

"Behind the scenes, there's a bunch of little mice on wheels that are taking the data from one system, manipulating it and sending it to another system," Babachicos said. "That's a full-time job for a team, running these interfaces. ... And once [the data] leaves the organization, all bets are off."

Oriol noted that his organization in the last quarter exchanged about 500,000 records, but said it failed to connect roughly 150,000 of those because it couldn't match the identities of its patients.

<http://www.fiercehealthcare.com/it/marc-probst-we-re-not-close-to-solving-interoperability>

Figure 2. Interoperability problems leading to health data access problems.

Potential remedies

It looks obvious that the reduction of administrative type of work would benefit the clinicians most. The documentation requirements should be carefully analyzed and minimized to the essential from the point of view of the clinicians.

It may be that documentation which is considered burdensome by the clinicians, is essential from the point of the reimbursement organization. The solution could be sought by hiring dedicated personnel to perform the part of the documentation which does not absolutely need an educated physician to do it. Although this would increase costs, a responsible employer could consider this investment as an investment to the well-being of their core personnel which comes back as a reduced burnout risk and work satisfaction making the organization also more attractive to the best-skilled medical professionals. The salaries of the dedicated documentation professionals are typically considerably lower than those of the physicians who in turn may be able to generate more revenue from direct patient care. This may not be the silver bullet for all. One person clinical practices may not be able to hire such support staff, for example.

The literature survey identified a problem relating to the health care cost reimbursement. Different health insurers require different types of documentation and the documentation requirements vary from state to state. Fulfilling all these needs requires effort from physicians which is not considered productive or rewarding work. There is room for harmonization of these documentation requirements of the reimbursement organizations. These organizations, together with the public bodies who also require documentation should form an organ to standardize the requirements and then adhere to these standards.

Figure 2 identifies one significant problem for interoperability, patient identification. Countries which have a national identity code for their citizens have mostly solved the patient identification problems but others pay the price until the idea of a national identity code becomes politically possible. The introduction of advanced personal health record (PHR) systems may be a solution even without the national ID but the lack of interest of the majority of the population to spend the time, effort and money to set up their PHRs suggests that this does not solve the problem either.

The usability problems persist despite major usability advances in the consumer computing sector. Although it is easy to blame the producers of the EHR systems, the buyer organizations have also a role to play. If the buyer organization has the luxury of self-specifying the user interfaces instead of having to make a decision between a small number of ready-made products, the buyer organization could invest effort in specifying the user requirements, e.g. different displays, response times etc. so accurately that they at least almost get what they want. In Finland, the ESKO system, designed in co-operation with the personnel and the developers in Oulu University Hospital always gets the highest points in national user satisfaction studies of major EHR systems.

The role of health informatics SDOs

Health informatics standards development organizations (SDOs) cannot alone address the clinician burden problem but they can do their part. Most critical appears still to be the promotion of interoperability between different systems. The activists of the SDOs should dig deeper into the issue by studying a number of real interoperability problem cases. The careful studies should reveal if the problem is in the lack of standards or not using the existing standards (correctly) which would have solved the problem. Once the gaps in standards have been identified, they can be addressed. In the usability side, there are already a few usability standards that could be applied, e.g. ISO/IEC 62366. The SDOs could inform the health IT buyer community about the existence of these standards so that they could be applied in procurement. Finally, the Clinician Burden project team should contact those other identified actors that are partly responsible for the clinician burden and suggest them to do their part in alleviating the problem.