

Written testimony of Abel Kho MD, MS

My name is Abel Kho. I am an Internal Medicine Primary Care Physician at the Northwestern Medical Faculty Foundation in Chicago. I am also Assistant Professor of Medicine at Northwestern University, conducting Medical Informatics research, and serve as Co-Director of the ONC-funded Chicago Health IT Regional Extension Center helping fellow primary care providers achieve meaningful use of electronic health records.

Many providers are not aware of the concept of usability, except when we can't accomplish our tasks in clinic or the hospital. As a Regional Extension Center engaged with a wide variety of providers, we've noted two distinct groups of clinicians who raise usability concerns: Novice users just starting on an EHR, and experienced users who have had either deep experience with a single EHR product, or multiple products. Most providers in between finds creative ways to make the EHR work well enough.

Novice users are acutely aware of the contrast between their speed interacting with the EHR, and the speed of the salesman who sold them the product. Most issues at this stage relate to ease of use which training and post go-live support can address. When providers develop proficiency in the use of the EHR, they start to recognize design features which impede repetitive tasks within their workflow, even if just for a moment. In particular, poor contextual data presentation, requiring the clinician to go out of context or sort through an overwhelming morass of data to find information to make a decision, can dramatically reduce efficiency, or worse, increase the risk of errors.

Take, for example, ordering medications, one of the more common tasks of a provider. For effective use, key information, such as allergies, prior lab results, current medications and insurance provider need to be readily available within the workflow. The order of possible medications in a list of choices makes a large difference in the medication most likely to be chosen. We struggled with overuse of an ineffective antibiotic treatment for urinary tract infections, until we simply dropped it further down the list of treatment options. Similarly with ordering radiology studies; too detailed a list or too few on the list, and a provider may struggle to find the ideal choice. In my practice, it is easier to order an ultrasound when a simple screening test for peripheral arterial disease would provide equivalent information. Simplistically the balance of presenting enough information in a clear fashion within context represents good usability. That failing, providing the ability to switch out of task to gather needed information, while "holding your spot" would also help.

As an organization tasked with assisting physicians to meaningfully use EHRs, we feel an obligation to our members to try and raise usability as an issue, and as part of an academic institution, we see the value of further research. In our Regional Extension Center application we included the creation of a center to study usability as part of the EHR adoption process. We have engaged researchers and a local usability firm to provide usability expertise and facilities, and are in the final stages of hiring a post-doctoral fellow to lead research efforts. We feel that clear documentation and measurement of the most common usability issues across a variety of users and products, conducted in a non-punitive manner would engage both health care providers and EHR vendors and bring objectivity to this important area. Usability can be reliably measured as many of the other panelists can readily attest,

and measurement will be the first step to making improvements. I think it is important also to recognize that despite usability concerns, Electronic Health Records are a tool that dramatically improves our ability as clinicians to provide high quality care and that despite the concerns raised, the current state is certainly a dramatic improvement over the past. The Office of the National Coordinator is positioned to bring together the broad participation necessary to make progress on developing safer and better Electronic Health Records and we look forward to working with others with similar goals.

Thank you for this opportunity.

Abel Kho MD, MS