



National Alliance for Hispanic Health

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July 18, 2022

Robert M. Califf, M.D.
Commissioner
Food and Drug Administration
U.S. Department of Health and Human Services
10903 New Hampshire Avenue Silver Spring, Maryland 20993
RE: Docket No. FDA-2018-N-1910-0047

Dear Commissioner Califf:

Our comments are focused on the required report as part of the Development of 21st Century Cures Act Section 3060(b) on the risks and health benefits of non-device software functions which include certain software functions intended for a variety of situations. The urgency for this report has never been greater as the COVID pandemic has changed the acceptance of mHealth throughout the nation. We recognize that now more than ever there is a need to consider the benefits and risks of the multitude of mHealth software that exist.

We reviewed the 2020 report and commend the use of the WHO definition of health, i.e., a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity. We note that the 2020 report underrepresented the negative impact and overrepresented the positive impacts of non-device software solutions. Specifically: (1) tendency to cite the benefits and not include the risks and limitations within a study; (2) insufficient focus on datasets driving clinical decision support systems; and, (3) lack of consideration by race, ethnicity, and gender. These are discussed below as well as, where appropriate, steps to guide the development of the 2022 report.

Benefits and risks to health

Recognize limitations in citations: There was a tendency to cite the benefits and not include the risks and limitations within a study. For example:

- Pg. 6. Benefits and Risks to Health. “The study also found that the software reduced appointment no-shows by 1.3% and increased the number of appointments completed by 3.1%.¹ Omitted was that the study also revealed that “Factors negatively associated with offer acceptance were a higher number of comorbidities ($P=.02$) and visits scheduled for chronic conditions (versus acute conditions only; $P=.002$). Future modifications, such as increasing the adoption of SMS text messaging offers and targeting older adults or patients with complex conditions, may make the system more patient-centered and help promote wider utilization.”
- Pg. 8. Benefits and Risks to Health. “Evidence from a second study suggested that mobile health applications are associated with increased engagement with health-promoting behaviors among adults with chronic conditions. These behaviors included tracking health-related goals, making health-related decisions, and engaging in health-related discussions with care providers” cited Mahmood, Kedia, et al.² What was omitted was that in that study a clear statement was made, “Rigorous randomized clinical trials among various segments of the population and different health conditions are needed to

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establish the effectiveness of these mHealth apps. Healthcare providers should encourage validated mHealth apps for patients with CCs.”

- Pg. 12. Benefits and Risks to Health. “Among patients with multiple complex chronic conditions, patient portal use was significantly associated with fewer ED visits and preventable hospital stays³ omitted that a limitation was that the data were based on an “Observational study in an integrated delivery system.”

Rethink discussion of adverse event reports. While at the beginning of the report a statement is made, “We acknowledge, however, that given there is no requirement to report adverse events from non-device software, adverse events may be underrepresented in this report...” throughout the report (pgs. 5, 6, 10, and 16) the number of adverse reports were presented. The numbers were of course low but by including them gave the appearance that that there was no risk as opposed to being a result of a lack of a mandate to report adverse events.

Best practices to promote patient safety, education, and competency

Recognize limitations of datasets that drive clinical decision support systems (CDS). While the FDA did find in the 2020 Section 3060(b) report that CDS systems can fail to detect drug interactions that can lead to adverse events, the 2022 report must also clearly address the patient safety risk of the lack of inclusion of known differences in drug response by race, ethnicity, and gender⁴ and the risk of reliance on CDS software that lack adequate race, ethnicity, and gender data from clinical trials. It is essential to note that in the US over the past 20 years less than half of clinical trials (43%) reported any race or ethnic data and trials only had 6% Hispanic enrollment while Hispanics represent 18% of the US population⁵.

Research Needs to be Specific and Inclusive. The research that is cited must provide analyses at a minimum by race, ethnicity, gender, and age. To omit these factors will necessarily have a negative impact and exacerbate the fissures which exist in our health care enterprise.^{6,7,8} The importance of including these data were highlighted in the New England Journal of Medicine⁹ as well as in their new guidelines.¹⁰ There is also evidence that there are generational differences in user competence¹¹ as well as substantial differences among mHealth users in terms of social determinants.¹²

Whether non-device software functions to encourage a healthy lifestyle, serve as an electronic patient record, or provide limited clinical decision support it needs meaningful oversight to make sure that they benefit the individual and do not create negative adverse consequences.

Please let me know if the Alliance can provide any additional information.

Sincerely,

Jane L. Delgado, Ph.D., M.S.
President and CEO
National Alliance for Hispanic Health

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End Notes

- ¹ Chung, Sukyung, Meghan C. Martinez, Dominick L. Frosch, Veena G. Jones, and Albert S. Chan. "Patient-Centric Scheduling with the Implementation of Health Information Technology to Improve the Patient Experience and Access to Care: Retrospective Case-Control Analysis." *Journal of Medical Internet Research* 22, no. 6 (2020): e16451.
- ² Mahmood, Asos, Satish Kedia, David K. Wyant, SangNam Ahn, and Soumitra S. Bhuyan. "Use of mobile health applications for health-promoting behavior among individuals with chronic medical conditions." *Digital Health* 5 (2019): 2055207619882181.
- ³ Reed, Mary E., Jie Huang, Richard J. Brand, Romain Neugebauer, Ilana Graetz, John Hsu, Dustin W. Ballard, and Richard Grant. "Patients with complex chronic conditions: health care use and clinical events associated with access to a patient portal." *PLOS One* 14, no. 6 (2019): e0217636.
- ⁴ National Alliance for Hispanic Health. Genes, Culture, and Health: Ensuring the Best Health Outcomes for All. Washington, DC: 20015. <https://bit.ly/3ckfWfe>
- ⁵ Turner, Brandon, Jecca R. Steinberg, Brannon T. Weeks, Fatima Rodriguez, Mark R. Cullen. "Race/ethnicity reporting and representation in US clinical trials: A cohort study." *The Lancet Regional Health – Americas*. Volume 11, July 2022, 100252. <https://doi.org/10.1016/j.lana.2022.100252>
- ⁶ Ramos, Giovanni, Carolyn Ponting, Jerome P. Labao, Kunmi Sobowale. "Considerations of diversity, equity, and inclusion in mental health apps: A scoping review of evaluation frameworks." *Behavior Research and Therapy*. December 2021. Volume 142. <https://www.sciencedirect.com/science/article/pii/S0005796721001893#bib37>
- ⁷ Figueroa, Caroline, Tiffany Luo, Adrian Aguilera, and Courtney Lyles. "The need for feminist intersectionality in digital health." *The Lancet Digital Health*. The Lancet Digital Health. Volume 3, Issue 8 August 2021
- ⁸ Samarasekera, Udani. "The rise of racial minority health apps." Volume 4, Issue 4, April 1, 2022, Pages e218-E219
- ⁹ Delgado, Jane. "Beyond Diversity— Time for New Models of Health" *New England Journal of Medicine* 386;6, February 10, 2022, Pgs. 503-505.
- ¹⁰ Editors. "Striving for Diversity in Research Studies." *New England Journal of Medicine*, October 7, 2021; 385:1429-1430 DOI: 10.1056/NEJMe2114651
- ¹¹ Shemesh, Tomer, Sivia Barnoy. Assessment of the Intention to Use Mobile Health Applications Using a Technology Acceptance Model in an Israeli Adult Population. *Telemedicine and e-Health*. Sep 2020. 1141-1149. <http://doi.org/10.1089/tmj.2019.0144>
- ¹² Ye, Jianchen and Qianheng Ma. The Effects and Patterns among Mobile Health, Social Determinants, and Physical Activity: A Nationally Representative Cross-Sectional Study. [AMIA Jt Summits Transl Sci Proc](https://doi.org/10.1007/s11646-021-10000-0). 2021; 2021: 653–662. Published online 2021 May 17