PHYSICAL ACTIVITY ALLIANCE

MOVE WITH US

February 6, 2023

Micky Tripathi, PhD, MPP
National Coordinator
Office of the National Coordinator for Health Information Technology (ONC)
Department of Health and Human Services
Hubert Humphrey Building, Suite 729
200 Independence Avenue SW
Washington, DC 20201

Re: ONC's Draft United States Core Data for Interoperability (USCDI) Version 4 – Physical Activity

Dear Dr. Tripathi,

This letter is to provide additional supporting information for the Physical Activity Alliance's submission of the Physical Activity Status data element to standardize the assessment of physical activity (PA) into the U.S. Core Data for Interoperability (USCDI). This data element is made of four applicable standards and includes the two components from the Exercise Vital Sign, with those results multiplied for a third standard of total minutes of moderate-vigorous physical activity/week. The fourth standard is the measure of the number of days muscle-strengthening exercise is performed each week. All of these standards are validated in the peer-reviewed literature[1,2] and are aligned with the 2018 U.S. Physical Activity Guidelines for Americans.[3]

The assessment of PA as a vital sign that the Physical Activity Alliance is proposing is readily technically feasible. Two of the applicable standards of the proposed assessment are part of the voluntary 2015 Certification Companion Guide on Social, Psychological, and Behavioral data (Paragraph (a)(15)(v)). There are about 150 electronic health record systems that have met this certification, which represents about 30 percent of the commercially available systems in the U.S. Therefore, for those systems that already adhere to the certification criteria, it would only require the introduction of the muscle-strengthening standard, which should fit into the same workflow, user-interface, and data exchange codes. The Physical Activity Alliance is also working with a large consortium of experts on developing an HL7 FHIR implementation guide involving the proposed Physical Activity Status as a foundation to the assessment, referral, and prescription of PA.[4] It is expected that this implementation guide will be sent to balloting in May 2023 and published in the Fall of 2023.

[1] Coleman KJ, Ngor E, Reynolds K, Quinn VP, Koebnick C, Young DR, Sternfeld B, Sallis RE. Initial validation of an exercise "vital sign" in electronic medical records. Med Sci Sports Exerc. 2012;44:2071–2076. doi:10.1249/MSS.0b013e3182630ec1
[2] Harris C, Watson K. A data users guide to the BRFSS physical activity questions: How to assess the 2008 Physical Activity Guidelines for Americans. Atlanta, GA: CDC; 2011.
[3] US Department of Health and Human Services. Physical Activity Guidelines for Americans, 2nd edition. 2018.
[4] https://confluence.hl7.org/display/PC/Physical+Activity

It is now widely accepted that regular PA, particularly meeting the U.S. Physical Activity Guidelines, is critically important to maintain physical and mental health and well-being, reduce non-communicable diseases and their associated health factors and increase immunity to and recovery from certain infectious diseases.[3,5,6] Physical activity plays a key role in the prevention and management of cardiovascular disease, diabetes, certain cancers, depression, anxiety, along with more than 40 other NCDs.[3,7] However, in the U.S., the overall prevalence of physical inactivity among adults in our nation is alarmingly high (25.3 percent), and significant disparities exist among race/ethnic groups (e.g., non-Hispanic Asian adults, 20.1 percent; non-Hispanic White, 23.0 percent; non-Hispanic American Indian/Alaska Native, 29.1 percent; non-Hispanic Black, 30.0 percent; and Hispanic adults, 32.1 percent).[8] The most recent release the National Health Information Survey found that only about 28% of all American adults are meeting the combined aerobic and muscle-strengthening guidelines.[9] The results go further and highlight disparities between those living in rural versus urban areas. Only 16% of adults living in rural areas are meeting the combined physical activity guideline versus almost 28% of adults living in urban areas.[9] Furthermore, low PA and low fitness pose immediate and long-term threats to our nation's safety and security. At this time, 71 percent of Americans ages 17-24 fail to meet core eligibility requirements for entrance into the military,[10] while among those who do meet basic requirements for service, musculoskeletal injuries associated with low fitness levels cost the Department of Defense hundreds of millions of dollars,[11] and have been identified as the most significant medical impediment to military readiness.[12] Multiple scientific and regulatory bodies recognize regular PA as both health-promoting and important for disease treatment and prevention with numerous benefits that contribute to a disability-free lifespan.

The American Medical Association and the American College of Sports Medicine encourage all clinicians to regularly assess and counsel patients on PA through the Exercise is Medicine initiative.[13] As mentioned in the application, health systems like Kaiser Permanente and Intermountain Health have led the way in assessing and referring PA, by incorporating PA assessment into each care visit in their combined 925 medical offices and other healthcare facilities. Additionally, Exercise is Medicine Greenville (Prisma Health) has been the model for not only assessing PA, but also integrating the referral of patients to community organizations like the YMCA. Other health systems have partnered with Exercise is Medicine to incorporate the Exercise is Medicine framework, notably University of Washington, Hartford Health, Ohio State University Wexner Medical Center, UC San Diego Health, Penn State Health, and University of Michigan Sports Medicine, each of which perform assessment and referral through their respective electronic health records and referral to system-owned medical fitness

[5] Sallis R, Young DR, Tartof SY, et al. Br J Sports Med2021;55:1099–1105

[6] Brief Summary of Findings on the Association Between Physical Inactivity and Severe COVID-19 Outcomes (cdc.gov)

[7] American Institute for Cancer Research/ World Cancer Research Fund. Continuous Update Project: Physical Activity. 2020. Available at https://www.aicr.org/research/the-continuous-update-project/physical-activity/.

[8] Centers for Disease Control and Prevention. Adult physical inactivity prevalence maps by race/ethnicity. January 2022. Atlanta, GA. Accessed online June 17, 2022 at Adult Physical Inactivity Prevalence Maps by Race/Ethnicity | Physical Activity | CDC

[9] Abildso CG, Daily SM, Umstattd Meyer MR, Perry CK and Eyler A. Prevalence of Meeting Aerobic, Muscle-Strengthening, and Combined Physical Activity Guidelines During Leisure Time Among Adults, by Rural-Urban Classification and Region - United States, 2020. *MMWR Morb Mortal Wkly Rep*. 2023;72:85-89.

[10] U.S. Department of Defense, Joint Advertising Market Research and Studies. (2016). The target population for military recruitment: youth eligible to enlist without a waiver. https://dacowits.defense.gov/Portals/48/ Documents/General percent20Documents/RFI percent20Docs/Sept2016/JAMRS percent20RFI percent2014. pdf?ver=2016-09-09-164855-510.

[11] Bulzacchelli M, Sulsky S, Zhu L, Brandt S, Barenberg A. The cost of basic combat training injuries in the U.S. Army: injury-related medical care and risk factors. In: Military Performance Division, U.S. Army Research Institute of Environmental Medicine. Edited by Natick MA, March 2017.

[12] Hauret KG, Jones BH, Bullock SH, Canham-Chervak M, Canada S. Musculoskeletal injuries description of an under-recognized injury problem among military personnel. *AmJ Prev Med*. Jan 2010; 38(1)(suppl):S61–S70.

[13] Bowen PG, Mankowski RT, Harper SA, Buford TW. Exercise is Medicine as a Vital Sign: Challenges and Opportunities. *Transl J Am Coll Sports Med*. 2019;4(1):1-7.

centers. Additionally, the Medical Fitness Association has over 40 certified medical fitness facilities, which all have a direct relationship to health systems. So, there is a clear and growing movement to bring the assessment of PA to the U.S. healthcare system and integrate with community providers. Adding PA assessment to the USCDI would further solidify and standardize the assessment in the electronic health records in the U.S., which could dramatically improve population health.

Evidence suggests that in clinics which regularly assess PA as a vital sign, patients are more likely to be referred to exercise programming, patients who are obese have a greater amount of weight loss, and patients with diabetes have improved hemoglobin A1c.[14] A recent survey of a national sample of Medicare Advantage enrollees found that approximately 50% of patients were asked about their physical activity levels by their physicians and about 90% of patients followed through with an exercise recommendation if given one.[15] Furthermore, new research shows that more than 110,000 lives could be saved annually if adults in the U.S. increased their PA by just ten minutes per day.[16] Currently in the U.S., only 26 percent of men, 19 percent of women, and 20 percent of adolescents report meeting the relevant guidelines for aerobic and muscle-strengthening activities.[3] Even so, current population PA levels avert 3.9 million premature deaths globally and 140,200 premature deaths in the U.S. annually.[17] If all Americans met current PA guidelines, Medicare could save almost $74 billion per year.[18] In one study of over 50,000 older adults, total average healthcare expenses (including medical and pharmacy) were reduced by 16 percent for fitness program participants compared to non-participating Medicare Advantage members. Medical component of costs was decreased by 26 percent, driven primarily by reductions in hospitalization costs.[19] In a recent study assessing of PA during a medical office visit found meeting aerobic PA guidelines was associated with reduced healthcare utilization for inpatient, primary care, and emergency department visits.[20] Therefore, adding the assessment of PA could have a significant impact on population health and potentially reduce healthcare costs and utilization. Despite the potential benefits, adoption of PA-related assessment, prescription, and referral as a standard of practice is inhibited by barriers like the lack of consensus about what PA-related information should be collected in a patient's health record.

We hope the above evidence demonstrates further maturity of use of the Physical Activity Status in health systems and with community level providers and further elucidates the important impact of including the Physical Activity Status as part of the USCDI v4. We urge ONC to include PA assessment in

[14] Grant RW, Schmittdiel JA, Neugebauer RS, Uratsu CS, Sternfeld B. Exercise as a vital sign: a quasi-experimental analysis of a health system intervention to collect patient-reported exercise levels. *J Gen Intern Med*. 2014;29(2):341-348. doi:10.1007/s11606-013-2693-9

[15] Barclay JP, Sussman M. "Senior Healthy Living Survey by SilverSneakers." Tivity Health, November 14, 2022. https//www.tivityhealth.com/senior-healthy-living-survey/

[16] Saint-Maurice, PF., Graubard, BI., Troiano, RP., Berrigan, D., Galuska, DA., Fulton, JE., Matthews, CE. Estimated number of deaths prevented through increased physical activity among US adults. *JAMA Intern Med*. 2022 March 1; 182(3); 349-352.

[17] Strain T, Brage, S., Sharp, SJ., Richards, J., Tainio, M., Ding, D., Benichou, J., Kelly, P. Use of the prevented fraction for the population to determine deaths averted by existing prevalence of physical activity: a descriptive study. *Lancet Global Health*. 2020;8:e920-30.

[18] HHS FY2016 Budget in Brief, https://www.hhs.gov/about/budget/budget-in-brief/cms/medicare/index.html.

[19] SilverSneakers Program Impact Analysis, independent study conducted by the Health Economics and Advanced Analytics Practice at Avalere Health on behalf of Tivity Health, March 2021.

[20] Lin CY, Ball TJ, Gentile NL, McDonald VF, Humbert AT. Associations Between Physical Activity Vital Sign in Patients and Health Care Utilization in a Health Care System, 2018–2020. *Journal of Physical Activity and Health*. Published online December 08, 2022. doi:10.1123/jpah.2022-0266

the final version 4 of USCDI. Thank you for your consideration and support and please reach out to Laurie Whitsel, Ph.D. (laurie.whitsel@heart.org) or Paul Chase, Ph.D. (paul.chase@heart.org) if we can answer any other questions.

Sincerely,

Amy Bantham, DrPH

President – Physical Activity Alliance