1		Response to Commentary by	
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3		On	
4		The first global physical activity and sedentary behaviour guidelines	
5		for people living with disability	
6		by	
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- 37 **Number of references** =9
- 38 We thank Dr Martin Ginis and colleagues for their commentary on the 2020 World Health Organization (WHO) 39 Guidelines on physical activity and sedentary behaviour ('2020 Guidelines') for people living with disability<sup>1</sup>, and 40 our associated paper. We respond here by clarifying the purpose of the guidelines, justifying the use of 41 available evidence, and highlighting how the guidelines can advance disability inclusion. 42 The 2020 Guidelines set out evidence-based recommendations on the amount and types of physical activity that 43 offer health benefits and mitigate health risks. These guidelines have a public health focus and, like all WHO guidelines, have a dual aim of improving population health and reducing inequity.<sup>3</sup> The 2020 Guidelines include 44 45 specific recommendations for people living with disability, recognising this population as a key part of the global community and one which has too often been omitted in national and global recommendations. Recognising the 46 47 serious impact of such exclusion, and to advance implementation of the Convention on the Rights of Persons 48 with Disabilities, the WHO now mandates the inclusion of disability in policy and guideline development.<sup>4</sup> 49 Moreover, in accordance with WHO protocols and best practice, people with disability were involved in the 50 2020 guideline development process. We agree with Dr Martin Ginis and colleagues that there is a concerning lack of direct evidence on physical 51 52 activity and sedentary behaviour specific to people living with disabilities, especially on the risks of developing 53 chronic diseases with a large population burden (e.g. cardiovascular disease, cancers, diabetes). However, in 54 accordance with the WHO Handbook for Guideline Development, lack of specific evidence is not sufficient 55 justification to delay guideline development, given the known health risks of physical inactivity and sedentary behaviour. Therefore, despite gaps in direct evidence, it was deemed important and necessary to use best 56 57 available evidence and expert opinion to develop specific recommendations to end exclusion and to guide

action to reduce harms of physical inactivity and sedentary behaviour.

The available direct evidence came from studies of people with disability relating to eight health conditions and demonstrated the benefits of physical activity for clinical health outcomes such as a reduction in pain, and improved function, cognition, and quality of life. 1,2,5 While there was limited evidence on the optimal type, frequency, or duration of physical activity from studies focused on people with disability, there were no indications that 'undertaking regular physical activity' would not benefit most, if not all, people living with disabilities. Furthermore, there was insufficient evidence to suggest that a different threshold was more appropriate than that recommended for the general population. Recognising the need to extrapolate evidence from general population studies, the guidelines clearly state that the strength of the evidence was downgraded due to indirectness. Furthermore, in recognition of the diversity across the population living with disability, the WHO Guidelines included 'best practice statements' to clearly direct individuals, and where relevant care givers, to tailor the recommendations to functional ability, health status and current level of activity. These statements support the management of risk and clearly acknowledge that people living with disability "may need to consult a health-care professional or other physical activity and disability specialist to help determine the type and amount of activity appropriate for them". 1 p13 We disagree with Dr Martin Ginis and colleagues that the guidelines may inadvertently perpetuate 'ableist ideals'. The WHO Guidelines specifically highlight that any amount of physical activity is beneficial and that the recommendations should be adapted by individuals and healthcare providers, as appropriate. Careful consideration was given to the language used across the WHO Guidelines to avoid terminology that may be considered 'ableist'. For example, too frequently in literature, guidelines, and health promotion materials, 'sitting' is used in place of 'sedentary'. The WHO recommendations avoided this for reasons that are obvious to those with restricted ambulatory movement. As Dr Martin Ginis and colleagues point out, communication of the recommendations is critical, and needs to avoid ableist ideals, language, and sentiment. Done well, the communication and adoption of the WHO Guidelines can empower communities, including those living with disability, to be agents of structural and systemic change enabling their right to physical activity in supportive environments.

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Inclusion of people living with disability in the WHO Guidelines brings global attention to disability inclusion in physical activity. Continuing to exclude this population from global public health policy may perpetuate false and dangerous notions such as: physical activity is not important for people with disability; people with disability are too fragile to undertake physical activity; or their needs are too specific for practitioners to address. Thus the inclusivity of these new WHO Guidelines positions people living with disability as active contributors in global efforts to #BeActive, and highlights that #EveryMoveCounts for everybody. We concur that the provision and opportunity for physical activity is not equal across population groups and that significant inequities exist, particularly for people living with disability. The 2020 WHO Guidelines can be used to engage stakeholders in identifying and mitigating the social and environmental determinants of health that contribute to the discrimination and frequent exclusion experienced by people living with disability. Our paper recommends ten areas for action to advance this agenda (see Carty et al., 2021). The new WHO Guidelines form part of a broader integrated suite of policy guidance for countries to implement interventions to reduce inequality and improve health. As a dynamic and iterative process, the development of global guidelines relies on the best available evidence at a given point in time. It enables gaps in knowledge to be highlighted and for priorities in research to be identified; and in no other area is it more evident that further research is needed than in the field of physical activity and disability, in both children and adult populations.<sup>8, 9</sup> We hope that these guidelines stimulate investment in research so that future guidelines will have more evidence to draw on to advance the recommendations on physical activity and sedentary behaviour for people living with disability. In the meantime, we believe that the inclusion of recommendations for people living with disability in the WHO Guidelines is a powerful call to the physical activity and sports communities, and beyond,

that people living with disability have an equal right to physical activity and health.

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