Research Assessment Exercise 2020 Impact Overview Statement

University: The Education University of Hong Kong Unit of Assessment (UoA): 40 Physical education, sport, recreation & physical activities Total number of eligible staff of the university in the UoA: 11

(1) Context

i. The Unit's research benefits a wide range of user groups, mainly in Hong Kong but also in mainland China and internationally. These include: a.) *kindergarten, primary, secondary and special school students, adolescents and their parents*, benefiting from research that enhances physical education (PE) and health education; b.) *principals and teachers* benefiting from new pedagogy that enhances their teaching outcomes; c.) *adults and workers*, benefiting from research focused on physical activity, health, and occupational health (e.g. construction workers), d.) *elderly people and their family members*, such as current and future dementia sufferers and their carers; e.) *athletes*, benefiting from research focused on sports science and improving athletes' performance; and f.) *community organisations* that use our knowledge and innovations to promote health and physical activity in the wider community (e.g. Physical Fitness Association of Hong Kong and Hong Kong Jockey Club Charities Trust); and g.) *policymakers* informed by our research, e.g., that informs school curriculum development, and health guidelines for workers.

ii. *The main types of impact relevant to the unit's research, include* a.). impacts on communities and families, including the *health* of children, athletes, and adults and elderly (raising awareness of physical fitness in ~13,000 students in 23 schools), ; b.) *societal impact*, including changes in societal attitudes towards physical activity and health; impacts through education, and impact on lifestyle changes; and c.) *policy impact*, by prompting policy change in curriculum development related to PE, physical activity and health, and regulations related to working practices, health and well-being. iii. *How these relate to the range of research activity or research groups in the unit*

Research of our three Research Focus Groups (RFGs) directly involves these user groups and types of impacts. a.) Our RFG for physical activities, including PE and with a particular focus on Special Educational Needs (SEN), conducts research and knowledge transfer (KT) that results in improved delivery of PE in schools, with health and community impacts on the physical health and lifestyles of children, and policy impact through curriculum development in schools. For example, research by Chung, JWY and Chung, LMY has enhanced balanced diet, physical activity and health literacy among teachers and students. b.) Our RFG on Sports Science is focused on improving efficiency of physical activity, exercise, and sports performance, for athletes and the general public, through optimising biomechanics and nutritional requirements, benefiting performance of athletes in diving, gymnastics, trampoline sports, and marathon running in Guangzhou and Hong Kong. For example, a series of studies have been completed by Sun et al. to investigate the effects of different nutritional interventions (i.e., carbohydrate and protein supplementations) on endurance performance, as well as physiological and psychological benefits. c.) Our RFG on Health, focused on lifestyle management, has health, community, societal, and policy impacts, by informing policy changes; societal changes in attitudes and lifestyle, benefitting the health, well-being and safety of individuals of all ages, in Hong Kong and beyond. For example, Cheng S-T's research on the benefits of mahjong has led to its adoption as a leisure activity for the elderly, in community centres and residential care homes around the world. The dementia caregiver intervention programme he developed has been widely shared in talks at Stanford University Medical School and a plenary at Alzheimer's Association Conference (18th Annual Updates on Dementia) (500 participants), and uploaded to YouTube [371 views].

(2) Approach to impact

The Unit has developed a five-pronged strategy to achieve impact by: i.) building a strong trackrecord in high quality research relevant to the community, funded through competitive grants or as contracted services. In 2015/16 we established a Departmental Advisory Committee, with four

external members from key stakeholder groups from the education, sports, and health sectors, to help identify key research topics of importance to these groups, and to monitor its quality; ii.) achieving quality and relevance by actively involving users through successive stages of the project, from question formulation, design, funding, data collection, and analysis, to disseminating the findings. This is facilitated by maintaining and utilizing our networks with key user groups, such as principals and teachers (including Quality Education Fund projects); community organisations (e.g. Hong Kong Jockey Club Charities Trust and Physical Fitness Association of Hong Kong); industry leaders and worker groups (e.g. Construction Industry Council); and policy bodies (e.g. Education Bureau; Food and Health Bureau). Such networks support our research development, collaboration, and dissemination; iii) extending the reach of our impact through research collaborations, within the faculty; with other universities and organisations in Hong Kong, and internationally (e.g. Cheng, S-T's collaboration with Stanford University, Universidad Rey Juan Carlos, Spain; Universidade NOVA de Lisboa, Portugal; The Chinese University of Hong Kong, and others); iv) reaching out to the wider community through a communications strategy involving a strong on-line presence for specific research initiatives, including website and social media activity (e.g.; a Community of Practice project incorporating 30 evidence-based health programmes with a total of 100 educators from 30 schools and >3,000 students and their parents; http://www.ehealthpromotion.eduhk.hk/); collaboration with the University's communications office to secure extensive media coverage; and participation in community events, such as Territory Wide Family Sports Days; and v.) monitoring our research outcomes and its impact, to inform future research, by including impact in our reporting and through longitudinal studies (e.g. *Chung's* research on the health of construction workers).

(3) Strategy and plans

As part of our research planning, the Department Head, working with the Departmental Research and Development Committee, has formulated strategies and plans for enabling impact from our research - a process that began in the current assessment period and is being enhanced as we learn from our successes and limitations. The Departmental Advisory Committee will continue to inform our future directions, building on recent developments focused on increasing the impact of our work. In 2018 we established the Hong Kong PE Teachers Association to strengthen networks with our alumni and other PE teachers, to engage them in our research and in using the resulting innovative practices to support curriculum development, teaching and student learning. A new initiative, aimed at promoting physical activity, hygiene, nutrition and health in schools and rural areas in developing countries has been launched in 2019 with a visit to Cambodia in which connections were made with the World Health Organization, United Nations Educational, Scientific and Cultural Organization (UNESCO), and local universities and schools. Such an initiative will be extended to other countries in the region such as Vietnam, Thailand, and rural areas of China, when opportunities arise. Funding and sponsorship are also being sought for a new research centre, focused on improving physical activity, sports performance and participation, and health. Collaborations with sports groups to meet the particular needs of athletes has been our ongoing strategy, and will be continued.

(4) Relationship to case studies

The Unit's approach to impact is well-reflected in *Prof Joanne Chung's* case study. This involves contracted research and knowledge transfer activity secured through her expertise in health literacy and its links to physical activity; the reputation of the Unit and University; and well-established relations with the partner organizations, the Physical Fitness Association of Hong Kong and the Hong Kong Jockey Club Charities Trust that help inform the research questions, execution and implementation; direct engagement with research user groups (children, parents and teachers) through action research, including the involvement of EdUHK students; professional development activities (e.g. workshops); and participation in community activities (e.g. Territory-Wide Family Sports Days). The project team also implements a communications strategy involving on-line activity and social media; and media engagement through press conferences and press releases that share important findings (e.g. the low level of physical activity found in HK kindergartens) and promotes changes in teaching and parenting practices through professional and public engagement.