

## COMMUNITY SPORTS COMMITTEE

### **Report of Advisory Committee on the Healthy Exercise for All Campaign - Physical Fitness Test for the Community 2010-11**

#### **Introduction**

This paper seeks to report to Members on the progress of the preparatory work for the Healthy Exercise for All Campaign - Physical Fitness Test for the Community 2010-11 (the Physical Fitness Test) and outline the proposed research methodology as well as the recommendations on the implementation work.

#### **Background**

2. Under the guidance of the Community Sports Committee (CSC), the first territory-wide physical fitness test in Hong Kong was completed during the period from 2005 to 2006. To tie in with the National Physical Fitness Surveillance Project (全民體質監測計劃) implemented on the Mainland and to take forward the recommendation of conducting a territory-wide physical fitness test every five years, the second territory-wide physical fitness test will be launched from 2010 to 2011. Through launching the Physical Fitness Test, we hope to identify the relationship between the physical exercise pattern and the physical fitness of Hong Kong people and the priority areas for improvement so as to enhance the overall physical fitness of the public.

3. The CSC endorsed the discussion paper CSC 02/10 on 17 March 2010 and agreed that an Advisory Committee (AC) on the Healthy Exercise for All Campaign - Physical Fitness Test for the Community 2010 be set up to advise on the preparation and implementation of the Physical Fitness Test. The AC is comprised of representatives from the CSC, the Department of Health, the Education Bureau, the Hong Kong Association of Sports Medicine and Sports Science, the Physical Fitness Association of Hong Kong, China and the Leisure and Cultural Services Department.

#### **Work Progress**

4. Since its formation, the AC has held three meetings during the period from May to August 2010. In order to solicit views widely from the academic sector on the implementation of the Physical Fitness Test, the AC invited a number of academic professionals to attend its second meeting and put forward their valuable views. During the meeting, the academics and Members explored thoroughly the methods of

taking samples for the Physical Fitness Test. After consolidating the views of those who attended the meeting, the AC has finalised the research methodology and drawn up various areas of work for the Test, such as the items to be tendered, the implementation strategies and the publicity plan. Moreover, as the Physical Fitness Test is mainly conducted by adopting a random sampling method, the work will progress over a time span of 2010 to 2011. The Secretariat has therefore proposed that the Test be renamed “Healthy Exercise for All Campaign - Physical Fitness Test for the Community 2010-11”. The specific arrangements for the Test are as follows:

## **Research Methodology**

5. It is proposed that the Physical Fitness Test will fully adopt a random sampling method to ensure the representativeness of its findings. The Test is divided into three parts. Part I covers the physical fitness tests for primary school students (aged about 7 to 12), and Part II covers the physical fitness tests for secondary school students (aged about 13 to 19) and kindergarten children (aged about 3 to 6). For both Parts I and II, the physical fitness tests and questionnaire survey will be arranged to be conducted at schools/kindergartens. However, if a selected school/kindergarten is not available for conducting the tests due to venue constraints, the LCSD will make arrangements for conducting the tests at a nearby community facility or a sports centre under its management. For Part III, which is targeted at Hong Kong people aged about 20 to 69, a questionnaire survey will be conducted at households and the participants need to take the physical fitness tests at designated venues.

## **Physical Fitness Tests for Primary School Students**

6. The Education Bureau is conducting the “Survey Study of Students’ Physical Fitness and Their Attitudes towards Physical Education” (the Survey Study) in local primary schools in 2010 and some of its test items are the same as those for children (aged about 7 to 12) in the Physical Fitness Test. The Education Bureau has agreed to provide those data for use in the analysis and report of the Test. The physical fitness tests for primary school students are scheduled to be conducted from mid-October 2010 to April 2011. Arrangements for the Test are as follows:

### **(a) Target groups and sampling**

- Local schools offering the local curriculum are divided into six groups, namely government schools, schools under the Direct Subsidy Scheme (DSS), schools under the Private Independent School (PIS) Scheme, and aided schools in the Hong Kong Region, Kowloon Region, New Territories East Region and New Territories West Region. Schools have been/will be invited to participate in the Test by random sampling on a pro rata basis.

- The number of schools participating in the Test amounts to about 3% of all the primary schools in Hong Kong. Each participating school has picked/will pick one class from each grade to take the physical fitness tests. There will be approximately the same numbers of boys and girls and it is expected that a total of about 3 000 students will participate in the Test.

(b) The Test Details

- The physical fitness test items for primary school students are height, weight, seated height, skinfold thickness of upper arm and calf, resting heart rate, resting blood pressure, sit-and-reach, hand grip, 1-min sit-up, chest circumference, standing long jump and 15m Progressive Aerobic Cardiovascular Endurance Run (PACER). As for the content of the questionnaire, the Education Bureau will revise the questionnaire of the Survey Study so as to cover the content of the questionnaire of the Physical Fitness Test.

### **Physical Fitness Tests for Secondary School Students**

7. We have made reference to the mode of operation adopted by the Education Bureau in conducting the Survey Study in local secondary schools in the 2009/10 school year. Moreover, when the physical fitness tests for primary school students have smoothly commenced, we will immediately proceed with the physical fitness tests for secondary school students. This stage of the Test is expected to commence in January 2011 and be completed in mid-May 2011. Arrangements for the Test are as follows:

(a) Target groups and sampling

- In the light of the distribution of secondary schools (namely government, aided, caput, DSS, PIS and international schools) in the 18 districts across the territory, a list of schools will also be selected by random sampling and at least one secondary school will be selected from each district. Each participating secondary school will be invited to select four grades and one class from each grade to participate in the Test. The sample size will be no less than 2 500 students (aged about 13 to 19).

(b) The Test Details

- The test items for secondary school students will be more or less the same as those for primary school students, except that a push-up test will be added.

## **Physical Fitness Tests for Kindergarten Children**

8. The physical fitness tests for infants (aged about 3 to 6) will be conducted from May to June 2011 immediately following the completion of the tests for secondary school students. The mode of operation will be more or less the same as that adopted for secondary schools.

### **(a) Target groups and sampling**

- In the light of the distribution of kindergartens registered with the Education Bureau in the 18 districts across the territory, a list of kindergartens will be selected by random sampling and at least one kindergarten will be selected from each district. Each participating kindergarten will be invited to select one class from each grade to participate in the Test. The sample size will be no less than 500 children.

### **(b) The Test Details**

- The test items for kindergarten children will be the same as those specified for infants (aged about 3 to 6) in the Physical Fitness Test for the Community 2005, including items such as seated height, throwing a tennis ball, walking on a balance beam and continuous jump with both feet.

## **Household Questionnaire Survey and Physical Fitness Tests at Designated Venues**

9. Sample collection will be conducted at schools for the primary school, secondary school and kindergarten groups. As for other age groups (including Adults (aged 20 to 59) and Seniors (aged 60 to 69)), sample collection will be conducted through a territory-wide questionnaire survey at randomly-selected households, and those respondents who have completed the questionnaire will be invited to take physical fitness tests at designated locations at a later date.

### **(a) Pilot Test**

- This part will be conducted in two stages. A Pilot Test will be launched in Stage I, with the aims of identifying problems and making appropriate adjustment or amendment to the content and operation of the physical fitness tests so that the chance of errors can be minimised and the planning for the territory-wide household survey and physical fitness tests in Stage II can be further improved.

(b) Successful Sample Size

- In the Pilot Test in Stage I, a questionnaire survey will be conducted at randomly-selected households in the 18 districts of Hong Kong. The proposed successful sample size is not less than 1 000 interviewed households.
- For the territory-wide household questionnaire survey in Stage II, the proposed successful sample size is not less than 3 000 interviewed households.

(c) Physical Fitness Tests at Designated Venues

- The respondents who have successfully completed the questionnaire will be invited to take physical fitness tests at sports venues in their own districts. Only those participants who have completed both the questionnaire and the physical fitness tests will be taken as final successful samples for data analysis and compilation of the report.
- To facilitate respondents' participation in the physical fitness tests, we have offered to them a choice of different time slots on the Fitness Test Days (including both working days and general holidays) at sports venues in their own districts or nearby areas.

(d) Contents of the Physical Fitness Tests

- The test items specified for Adults (aged 20-59) and Seniors (aged 60-69) in the Physical Fitness Test for the Community 2005 will continue to be adopted. Please refer to **Annex I** for details of test items for different age groups.

## **Contingency Plan**

10. If the participation rates of the household questionnaire survey and participants' subsequent attendance at the physical fitness tests at designated venues in the Pilot Test of Stage I are not satisfactory, we will conduct an immediate review and analyse the reasons for the public's unwillingness to take the tests and then decide whether to proceed with the territory-wide household survey and the physical fitness tests in Stage II. If no technical error is found after a comprehensive review, the participation rate at the Pilot Test stage should have truly reflected the public's actual response to the event. In other words, this mode of operation may not be appropriate for Hong Kong. We may need to shelve the territory-wide household survey and the physical fitness tests of Stage II and revert to the mode of operation adopted in the

Physical Fitness Test for the Community 2005, in which samples were collected by recruiting participants.

### Work Schedule

11. The Physical Fitness Test will be conducted for different age groups in different stages (Please refer to **Annex II** for the detailed work plan). The key areas of work are summarised below:

	Date	Details of Work
Part I	From mid-October 2010 to April 2011	To conduct data collection of the physical fitness tests for primary school students
Part II	From January 2011 to mid-May 2011	To conduct data collection of the physical fitness tests for secondary school students
	From May 2011 to June 2011	To conduct data collection of the physical fitness tests for kindergarten children
Part III	From January 2011 to mid-March 2011	Stage I: To launch the Pilot Test for randomly-selected households questionnaire survey and physical fitness tests at designated venues
	From April 2011 to August 2011	Stage II: To conduct territory-wide questionnaire survey at randomly-selected households and physical fitness tests at designated venues
Final Stage of Work	From September 2011 to October 2011	To collate and analyse the data collected from the Physical Fitness Test
	November 2011	To prepare the report on the Physical Fitness Test
	December 2011	To announce the summary of results of the Test

### Commissioning of Professional Agents

12. The LCSD will commission different professional agents to conduct the Test by inviting open tenders according to various modes of delivery and natures of jobs. The tendering exercises and their progress are tabulated below:

	Tendering Item	Progress Made
(a)	✧ To design samples, provide consultancy service and supervision, monitor the operation and co-ordination of various implementation units that work for different groups in the physical fitness	✧ Tender invitation was issued on 30 September but as at the deadline of 22 October, no quotation has been received by the Secretariat in response to the tender. A re-tendering exercise

	<b>Tendering Item</b>	<b>Progress Made</b>
	tests, submit a consolidated data analysis and compile a report etc. (covering the student groups, the Pilot Test, the territory-wide household survey and the physical fitness tests) for the Test	will therefore be conducted in early November, and it is expected that the evaluation procedure will be completed and the successful tenderer be announced by late December.
(b)	✧ To provide services regarding the physical fitness tests, data collection and analysis as well as compilation of reports for the secondary school and kindergarten groups	✧ Tenders were invited between 22 October and 12 November, and it is expected that the evaluation procedure will be completed and the successful tenderer be announced by late December.
(c)	✧ To provide services regarding the territory-wide household questionnaire survey (for the age group 20-69) (including the Pilot Test and the territory-wide household questionnaire survey)	✧ It is expected that tenders will be invited in mid-November, and the evaluation procedure will be completed and the successful tenderer be announced by late December the earliest.
(d)	✧ To provide services regarding the physical fitness tests and data collection at households throughout the territory (for the age group 20-69) (including the Pilot Test and the physical fitness tests for households throughout the territory)	✧ It is expected that tenders will be invited in mid-November, and the evaluation procedure will be completed and the successful tenderer be announced by late December the earliest.

### **Implementation Strategy**

13. The research methodology of the Test is different from that of the Physical Fitness Test for the Community 2005. The random sampling method will be adopted to select people from different age groups to participate in this Test and it is also necessary to take the circumstances of the actual implementation into consideration. The level of active participation by people from different age groups is one of the key factors to the successful implementation of the Test. Moreover, as the tests for different school categories also need to be conducted in parallel with each other, the support and co-operation of teachers, parents and students are indispensable. To enlist support from various sectors of the community and to encourage all members of the public to participate in the Physical Fitness Test, we will enhance publicity through different channels during the implementation period. The publicity will also be coupled with appropriate transportation arrangements and increased attractiveness of the event (e.g. the provision of shuttle buses to take participants to the venues for the physical fitness tests, the presence of advisers to sum up the physical fitness conditions of participants and provide professional opinions, and the giving away of souvenirs to participants upon their completion of the physical fitness tests) with a view to

increasing the effectiveness of the Test.

## **Publicity**

14. We will roll out a series of publicity activities in three stages to enhance public understanding of the implementation of the Test with the aim to call for and encourage active participation by the public. Details are as follows:

(a) Stage I (January 2011 to August 2011) - The Test will be launched on a full scale. Publicity includes:

- Launching Ceremony - The ceremony will be held in January 2011 (date to be confirmed) to declare the official commencement of the Physical Fitness Test and introduce the contents of and arrangements for the Test to the public. Fitness test equipment will be provided at the ceremony venue to conduct on-site tests for guests and members of the public.
- To issue press releases to enhance the public's understanding of the Test.
- To issue a newspaper supplement to promote the Test.
- To produce publicity posters, leaflets and banners for the Test and distribute them to the District Leisure Services Offices and leisure venues of the LCSD in the 18 districts, the 18 district offices under the Home Affairs Department as well as kindergartens, secondary schools, universities, post-secondary colleges and housing estates in various districts, etc.
- To design a dedicated webpage at the LCSD website for the public to obtain the latest information about the Test.
- To introduce contents of the event by putting display boards on the Physical Fitness Test at the Healthy Exercise for All Campaign roving exhibitions regularly held in shopping arcades, clubhouses and parks.

(b) Stage II (April 2011 to August 2011) - to roll out publicity activities on a regular basis during the implementation of the territory-wide household questionnaire survey and the physical fitness tests to enhance the public's understanding of the meaning of the Test and to maintain their interest in participation.

- To enhance publicity through newspaper advertisements and press

releases.

- To carry out publicity through television and radio programmes.

(c) Stage III (December 2011) - To sum up the event and announce the findings of the Physical Fitness Test:

- To announce to the public the findings of the Physical Fitness Test and the related recommendations through a press conference and press release.
- To issue a newspaper supplement on the findings of the Physical Fitness Test.

## **Presentation**

15. Members are invited to note the research methodology and the report on the implementation work set out in this paper.

Secretariat of the Advisory Committee on the  
Healthy Exercise for All Campaign - Physical Fitness Test for the Community  
2010-11  
November 2010

**Healthy Exercise for All Campaign –  
Physical Fitness Test for the Community 2010-11**

**Test Items**

Category	Test Items	Infants (Aged 3-6)	Children (Aged 7-12)	Adolescents (Aged 13-19)	Adults		Seniors (60-69)
					(Aged 20-39)	(Aged 40-59)	
Physical Measurements	Height	●	●	●	●	●	●
	Weight	●	●	●	●	●	●
	Seated Height	●	●	●			
	Chest	●	●	●	●	●	●
	Waist Circumference				●	●	●
	Hip Circumference				●	●	●
	Skinfold Thickness – Upper Arm	●	●	●	●	●	●
	Skinfold Thickness – Shoulder Blade				●	●	●
	Skinfold Thickness – Abdomen				●	●	●
	Skinfold Thickness – Chest				● (Male)	● (Male)	● (Male)
	Skinfold Thickness – Ilium				● (Female)	● (Female)	● (Female)
	Skinfold Thickness – Thigh				●	●	●
	Skinfold Thickness – Calf	●	●	●			

Category	Test Items	Infants (Aged 3-6)	Children (Aged 7-12)	Adolescents (Aged 13-19)	Adults		Seniors (60-69)
					(Aged 20-39)	(Aged 40-59)	
Cardiovascular Ability	Resting Heart Rate	●	●	●	●	●	●
	Resting Blood Pressure		●	●	●	●	●
	3-min Stepping Test				●	●	
	15m Progressive Aerobic Cardiovascular Endurance Run (PACER)		● *	● *			
Physical Ability	Sit-and-reach Test	●	●	●	●	●	●
	Hand Grip Test		●	●	●	●	●
	1-min Sit-up Test		●	●	●		
	Push-up Test			●	●		
	Standing Long Jump	●	●	●			
	Vertical Jump				●		
	Static Balance Stand				●	●	●
	Selection Reaction Time Test				●	●	●
	Throwing a Tennis Ball	●					
	10m x 2 Shuttle Run	●					
	Walking on a Balance Beam	●					
	Continuous Jump with Both Feet	●					
Total Number of Items	13	13	14	20	17	16	

**Remarks:**

\* “15m PACER” is a test item under the School Physical Fitness Award Scheme.

● means this test indicator is available for that age group.

**Healthy Exercise for All Campaign - Physical Fitness Test for the Community 2010-11  
Work Plan**

Item	Month	2010					2011											
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Physical Fitness Test</b>																		
1. To conduct data collection of the physical fitness tests for primary school students				←														
2. To conduct data collection of the physical fitness tests for secondary school students							←											
3. To conduct data collection of the physical fitness tests for kindergarten children												←						
4. Stage I: To launch the Pilot Test for randomly-selected households questionnaire survey and physical fitness tests at designated venues							←											
5. Stage II: To conduct territory-wide questionnaire survey at randomly-selected households and physical fitness tests at designated venues												←						



Item	Month	2010					2011												
		Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
<b>Report on the Physical Fitness Test</b>																			
1.	To collate and analyse the data collected from the Physical Fitness Test																		
2.	To prepare the report on the Physical Fitness Test																		
3.	To announce the summary of results of the Test																		
<b>Publicity</b>																			
1.	Stage I:																		
	➤ Launching Ceremony																		
	➤ To issue press releases to enhance the public's understanding of the Test; to issue a newspaper supplement to promote the Test																		

(Date to be confirmed)



