

MrOS and MsOS data inventory

	Base Line	1st follow up (3rd year/ 2YFU)	2nd follow up (5th year/ 4YFU)	3rd follow up (8 th year/ 7YFU)	4th follow up (15 th year/ 14YFU)
No. of subjects	2000 Male	1745 Male	1566 Male	989 Male	509 male (+7 male - spouse of MsOs) (total 516 male)
	15 Aug, 2001- 28 Feb, 2003	15 Aug, 2003 - 31 Mar, 2005	8 Aug, 2005 – 4 Apr 2007	28 Jan, 2008 – 5 Jan, 2010	552 female (+27 female - spouse of MrOs) (total 579 female)
	2000 Female	1682 Female	1587 Female	889 Female	16 Nov, 2015 – 29 Sep, 2017
	21 Jan, 2002 - 5 Dec, 2003	6 Jan, 2004 - 23 Dec, 2005	23 Jan, 2006– 30 Nov, 2007	7 Apr, 2008 – 5 Jan, 2010	
<u>Complete Questionnaires</u>					
Medical information	General Information				
	Medical history	Medical history	Medical history	Medical history	Medical history (chronic disease simplified)
					Parkinson Screening Questionnaire
	Medication Use	Medication Use	Medication Use		Medication Use
	Fracture history	(Fracture History, Falling & Weight Change only)	(Fracture History, Falling & Weight Change only)	Fracture history	(fall and fracture history in past 12 months, weight change in past 6 month and 1 month)
	Fracture History (Family history)	Family History Revised			
	Prostate/women health & condition	Prostate/women health & condition	Prostate/women health & condition		
	Tobacco & Alcohol	Tobacco & Alcohol			Tobacco & Alcohol (<u>Simplified</u>)
					use of medical and social service in past 12 months
Male health		Male – Sexual intercourse Ques (n=1190) Erectile dysfunction & satisfaction (IIEF-5, n=1190, MMSA, n=295)	Male – Sexual intercourse Ques Erectile dysfunction & satisfaction (IIEF-5, MMSA, ADAM)		
		Aggression			
Psychological Functioning & Dependency	Lifestyle (SF12)	Lifestyle (SF12+EQ5D)	Lifestyle (SF12 + EQ5D)	Lifestyle (SF12)	Lifestyle (SF12)
	IADL			IADL	IADL
					Satisfaction with Life Scale (SWLS)
	Depression (GDS)	Depression (GDS)	Depression (GDS)	Depression (GDS)	Depression (GDS)
					de Jong Gierveld Loneliness Sacle (Validated Chinese Version)
					Affective valuation inventory

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		Life Events	Life Events		Life Events
Cognitive Assessment	MMSE		MMSE	MMSE	MMSE
	CSI-D (10/66 Dementia Research Gp)			CSI-D (10/66 Dementia Research Gp)	
					MoCA
					Verbal Fluency
Physical Activity	Physical activities (PASE+CIP)		Physical activities (PASE)	Physical activities (PASE)	Physical activities (PASE)
Back pain and joint health	Back and Joint Health		Back pain		Back (simplified) and Knee Joint Health
					Swiss Spine Stenosis
			Hip Joint Health		
Social and economic status	Social and Economic Status			Social and Economic Status	
	Social ladder			Social ladder	Social ladder
				income and expenditure	Social Financial Supports and Perception of Financial Status
Neighborhood & Residency					Neighborhood Social Cohesion Scale
					Brief Sense of Community Scale
					Sense of Autonomy Outdoors
					Residency history
					Resident environment and indoor pollutant
Sleep habit		Sleep Habit (mini)	Sleep Habit (mini)		Sleep questionnaire (mini) (revised)
		Sleep Habit (Prof Wing)			
Frailty and saropenia					SARC-F
					Frailty Scale
Dietary Record	Food Frequency Questionnaire	Mini Nutrition Assessment			
<u>Anthropometry</u>					
Vital Sign and Body Meaasurement	Blood Pressure and Pulse	Blood Pressure and Pulse	Blood Pressure and Pulse	Blood Pressure	Blood Pressure and Pulse
	Ankle-To-Arm Blood Pressure	Ankle-To-Arm Blood Pressure	Ankle-To-Arm Blood Pressure		
	Weight and Height	Weight and Height	Weight and Height	Weight and Height	Weight and Height
		Sitting Height	Sitting Height		
			Arm span		
			Hand Exam		
			Hip Exam		
BMD	DXA (hip, spine, whole body)	DXA (hip, spine, whole body)	DXA (hip, spine, whole body)		DXA (hip, spine, whole body)
	Ultrasound	Ultrasound	Ultrasound		

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	pQCT (466 male, 443 female)	pQCT (1728 male, 37 female)	pQCT (358 male)		
DXA	Body composition (DXA)	Body composition (DXA)	Body composition (DXA)		Body composition (DXA)
	Abdominal fat (DXA)				
	Android gynoid ratio (DXA)	Android gynoid ratio (DXA)	Android gynoid ratio (DXA)		
X-ray	X-ray Spine		X-ray Spine and Hip		biplanar X-ray imaging (EOS) [46 male + 31 female (include 1 non-Os female*)] (Prof. Jack Cheng) *spouse of a MrOs
QCT		QCT (329 Male spine, 332 Male hip)			
MRI	MRI (total 395) (Prof Griffith)				MRI (Spine)
	Perfusion : Male – 52 hip, 83 spine; Female – 117 hip, 103 spine				
	Spectroscopy (marrow fat): Male – 59 hip, 89 spine; Female 120 hip, 103 spine				
	Disc and vertebral height: 177 male, 218 female				
	Endplate study: 162 Male, 194 Female				
	True volume: 56 Male, 62 Female				
	Mainly from visit 2, few from visit 4				
	62 male have both MRI and QCT data (male have 17 MRI hip fat and 15 hip perfusion with QCT				
Physical Functioning	Grip Strength	Grip Strength	Grip Strength	Grip Strength	Grip Strength
	Neuromuscular function (Single and repeated Chair Stand, 6 meter Usual Pace, 20cm Narrow Walk)	Neuromuscular function (Single and repeated Chair Stand, 6 meter Usual Pace, 20cm Narrow Walk)	Neuromuscular function (Single and repeated Chair Stand, 6 meter Usual Pace, 20cm Narrow Walk)	Neuromuscular function (Single and repeated Chair Stand, 6 meter Usual Pace, 20cm Narrow Walk)	Neuromuscular function (Single and repeated Chair Stand, 6 meter Usual Pace, 20cm Narrow Walk)
					Dual task in 6m Usual Pace
					Standing Balance (from SPPB)
Vision	Vision (Snellen Chart, CSV - 1000 and Frisby Stereotest)				
					Modified ATS Questionnaire

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Lung Function			spirometry pre and post-bronchodilator (110 male + 40 female) (Dr Ko)		Lung function measured by spirometry pre and post-bronchodilator [197 male (include 1 non-Os subject*) + 114 female (include 8 non-Os subject*)] [also participated in HM Summer visit 25 male + 10 female (include 1 non-Os subject*); participated in HM Winter visit 23 male + 7 female (include 1 non-Os subject*)] *spouse of Os subject
Vmax				EPIC 4Q + VSAQ ECG + VO2	
Activity Monitoring					7 days physical activity monitoring (estimation of daily energy expenditure and sleep) [363 male (include 4 non-Os subject*) + 287 female (include 17 non-Os subject*)] *spouse of Os subject
Biological & Enviornmental Samples					
Nails	Finger & Toe Nails Collection For Selenium				
Blood Collection	Fasting Blood	Non-fasting Blood	Male ~300 fasting blood (Prof Kwok)		Fasting Blood
	ACE genotype (Prof. Kwok) (M=1841, F=1957) Serum ACE activity (n=4000) (Prof. Kwok) SNP rs3736228 (LRP5) (M=1680) Vit D receptor 3 Haplotypes (SNP rs9729, SNP rs731236, HAP1, HAP2, HAP3) (M=1680)				Fasting Lipid profile Fasting glucose Serum creatinine Telomere length

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DNA/ Gene/ Blood					According to conversation with Amy Wang on 12032018, 1. Plasma sample around 1ml (seperated into two tubes) per subject, 2. genetic samples around 10 tubes per subject 3. each subject has one whole blood EDTA sample stored up
Home Environmental Monitoring					Summer visit: 70 male + 52 female (include 1 non-Os subject*) Winter visit: 64 male + 46 female (include 1 non-Os subject*) [also participated in lung function test: Summer visit 25 male + 10 female (include 1 non-Os subject*); Winter visit 23 male + 7 female (include 1 non-Os subject*)] *spouse of MrOs
					Indoor air pollutants (PM2.5, O3, SO2, NO2, formaldehyde and house dust)
					On-site Mircoclimatic measurements (air temperature, relative humidity, wind speed, globe temperature) and thermal comfort survey
Follow-up work (After Visit)					
Tel-FU	Every 4 month (during baseline – 4YFU)				Every 3 months for 12 months
	Falls and fracture history				Falls and fracture history
Fracture record from CMS	2000 male (up to Oct 2013), mean follow up time=11.3yr				
	2000 female (up to May 2012), mean follow up time =9.2yr				
Death record (Death registry / informed death)	All subjects (up to 27-Dec-2017) 878 male, 542 female died				
Dental	~420 male (Dr Shum)				

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BMR	~20 male, fasting (Forrest Yau)				
Memory Clinic	~100 male + female (Prof. Kwok)				
Tel-Questionnaire (for Refused follow-up)					
Telephone Refuse Questionnaire					Up to 27Dec2017, 177 male + 210 female (completed MoCA-5: 126male + 162 female)
					5-min MoCA
					Residency history
					Self-care ability
					SARC-F and Frailty
					use of medical and social service in past 12 months