REPORT OF THE SCREENING TEST REVIEW COMMITTEE 2026

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Preface

Health screening is conducted to facilitate the early diagnosis of diseases that have yet to clinically manifest with observable symptoms and/or signs. This allows the prompt institution of treatment and intervention(s) to achieve good health outcomes. In view of this, screening needs to be performed with care, taking into consideration the potential benefits and harms to the individual and population. The World Health Organization (WHO) recommends that screening should follow the specific principles below[1]:

1. The condition should be an important health problem.
2. There should be an accepted treatment for patients with recognised disease.
3. Facilities for diagnosis and treatment should be available.
4. There should be a recognisable latent or early symptomatic phase.
5. There should be a suitable test or examination.
6. The test should be acceptable to the population.
7. The natural history of the condition, including development from latent to declared disease, should be adequately understood.
8. There should be an agreed policy on whom to treat as patients.
9. The cost of case-finding (including a diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
10. Case-finding should be a continuous process and not a “once and for all” project.

Based on the above principles, there are tests which may be inappropriate to be carried out for screening purposes either at population or individual level and could lead to physical and psychological harms if performed. Given the wide range of medical conditions for which screening is being offered, and the tests available for screening, a framework to categorise screening tests is necessary.

The Screening Test Review Committee (STRC) has reviewed the appropriateness of specific screening tests based on the current evidence of their effectiveness, best practice, and expert opinion on the use of these tests. The report tiers its recommendations by placing the screening tests into three categories.

Screening tests are widely available in Singapore and are provided by both public and private healthcare institutions. In view of the general interest in health screening, and the emergence of new evidence since the 2019 report, the STRC 2026 report represents a refresh based on a review of international guidelines and evidence.

The refresh was guided by three key considerations: (1) supporting ongoing efforts to anchor preventive care upstream in primary care settings, (2) ensuring alignment with the WHO’s definition and principles of screening, and 3) streamlining the publications of recommendations that would be more appropriately covered in other published professional guidelines. The updated report is published in two volumes, with current Volume 1 covering breast cancer, cervical cancer, colorectal cancer, lung cancer, diabetes mellitus, hyperlipidaemia, hypertension, obesity, and osteoporosis.

The STRC guidelines serve as a screening framework to guide clinicians, especially primary care physicians, who generally serve as the natural first healthcare touchpoint for well population. However,

clinicians are advised to exercise clinical discretion when recommending specific screening tests for individual patients, considering each patient's unique risk profile and circumstances. This may include considering individual patient factors which may (1) increase the likelihood of adverse effects from screening interventions (e.g. polypharmacy, frailty and co-morbidities), or (2) reduce the benefit of screening (e.g. limited life expectancy, personal preferences regarding treatment choices and functional status). These are particularly salient in the elderly population, with whom clinicians should consider and discuss screening decisions before proceeding with screening.

An additional information section has been included for updated recommendations from the STRC 2019 to provide context and supporting evidence. Conditions with no specific recommendations due to the lack of evidence are demarcated with "-". In these cases, clinicians should consider screening for high-risk individuals based on clinical judgement.

Table of contents

I. Definition and principles of screening

Definition of screening

Screening refers to the conduct of tests or procedures for the early detection of disease in asymptomatic individuals who have not been diagnosed with that disease.

The testing of individuals at higher risk for a disease due to personal history of the primary condition (e.g. diabetic retinopathy, hypertensive retinopathy, and diabetic microalbuminuria, with primary condition being diabetes or hypertension) or its precursor (e.g. impaired glucose tolerance in the case of diabetes mellitus) will not be included in the STRC report as this represents clinical management of an existing pathology rather than screening. Clinicians are advised to refer to prevailing clinical management guidelines for the surveillance of such high-risk individuals.

Principles of screening

Screening individuals who are apparently well in order to pick up asymptomatic disease can be beneficial if early treatment is available to improve the prognosis and disease progression, and the disease is highly prevalent and/or has potentially serious consequences. It is beneficial for society if early detection of disease can result in reduced downstream burden of disease for that condition, especially in light of the current ageing population.

Whether or not a screening policy results in improved health outcomes depends on several factors including the disease characteristics, the screening test, and the target population.

Screening should ideally be performed on a continual basis rather than as a one-off intervention. The latter would only capture a snapshot of the population at a single time point and would fail to detect future incident disease, thereby limiting the intended benefit of a reduction in the downstream burden of disease.

Screening for early disease detection as a public health programme should be aligned with the following principles defined by the World Health Organisation (WHO)[1]:

1. The condition sought should be an important health problem.
2. There should be an accepted treatment for patients with recognised disease.
3. Facilities for diagnosis and treatment should be available.
4. There should be a recognisable latent or early symptomatic phase.
5. There should be a suitable test or examination.
6. The test should be acceptable to the population.
7. The natural history of the condition, including development from latent to declared disease, should be adequately understood.
8. There should be an agreed policy on whom to treat as patients.
9. The cost of case-finding (including a diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole.
10. Case-finding should be a continuous process and not a “once and for all” project.

Characteristics of a good screening test

The screening test of choice should be acceptable to the public, simple, easily applied, and valid.

There can also be too many false positives when multiple tests are performed without appropriate clinical considerations. A false positive may lead to unnecessary invasive testing, which comes with its own costs and risks of severe complications. In addition, false positive outcomes can lead to significant psychological harms in the form of substantial anxiety while awaiting further confirmatory testing to be done. Furthermore, there are studies that show that even after further tests exclude the possibility of serious conditions, the psychological distress may persist to affect mood and daily functioning.[2-4].

II. Categorisation of screening tests

Background

Given the wide range of medical conditions for which screening is being offered, and the tests available for screening, a framework to categorise screening tests is necessary.

The aim of the screening test framework is to provide clear guidance to clinicians, other healthcare professionals and members of the public about the value of specific screening tests and their clinical indications.

The Screening Test Review Committee (STRC) has decided upon the categorisation of the screening tests based on current clinical evidence, including local Ministry of Health Agency for Care Effectiveness (MOH ACE) Clinical Guidelines (ACGs), established overseas clinical guidelines and best practice and expert opinion, with inputs from the relevant Academy of Medicine Singapore Chapters and Colleges.

Categorisation of screening test

A three-category framework for screening tests – (1) Suitable for population-level screening, (2) Suitable for individual-level decision and (3) Not recommended is used. Table A summarises the definition for each category of screening tests within the framework and the criteria for categorisation.

This framework is not meant to replace the clinical judgment of clinicians as they would still need to assess the suitability of specific screening tests for their patients.

Table A. Three-category framework for screening tests

	Category	Definition	Criteria
1	Suitable for population-level screening	There is good robust evidence that the screening test is both clinically effective and cost effective for use to screen the population. **This categorisation is only applicable for screening in the specified age range.*	• The disease condition is an important health problem; • Its natural history is well understood; • It is recognisable at an early stage; • There is robust evidence (based on meta-analysis of randomised controlled trials (RCTs), high-quality RCTs) that use of the screening test improves survival; • The target population for the test is the general population (although age can be used to stratify this population into risk groups); • Recommendations made by trusted local and international expert authorities (e.g. MOH ACE, U.S. Preventive Services Task Force) uniformly support use of screening test; • Local/international cost-effectiveness data, if available indicates that the screening test is cost-effective at the population level.
2	Suitable for individual-level decision	The net benefit does not outweigh the risk in the general (average-risk) population, but the screening is useful (clinically and/or cost-effective) for high-risk populations. **High-risk groups may benefit from screening tests listed in category where the decision to screen, starting age and frequency of screening (if not specified), should be based on clinical discretion and tailored to the individual patient. Individual patient factors such that may increase the likelihood of adverse effects from subsequent interventions (e.g. polypharmacy, frailty, co-morbidities) and/or reduce the benefit of screening (e.g. limited life expectancy, personal preferences regarding treatment choices,*	• The disease is recognisable at an early stage; • The screening test may be not suitable for general populations (even after stratification by age into risk groups), although evidence suggests that some more defined high-risk groups (defined by other factors such as personal and family history) may benefit; • Risk-benefit ratio of benefit to harm is different for different individuals and may exceed 1 in some groups.

		functional status) should be considered discussed prior.	
3	Not recommended	a) There is insufficient evidence to make a decision regarding the usefulness of the test, or b) There is good evidence that the screening test is not effective, or that the net harm outweighs benefits.	• The current evidence is insufficient to assess the balance of benefits and harms of the service; • Evidence is lacking, or of poor quality, or is conflicting so that no decision can be made based on the information available. **Or:** • The natural history of the disease is not well understood; • There is no easily recognisable early stage of disease; • The performance characteristics of the screening test (in terms of sensitivity and specificity) are poor; • There is evidence that even narrowly defined high-risk groups will not benefit from the test; • The screening test, or follow-up tests arising from a positive screen, are associated with significant medical risks; • The risk-benefit ratio consistently exceeds 1 for all members of the population; • Recommendations made by trusted expert authorities are uniformly against the use of the screening test.

III. Categorisation of screening tests by disease grouping

1) Cancer

A. Female breast cancer
B. Cervical cancer
C. Colorectal cancer
D. Lung cancer

2) Metabolic, nutritional, and endocrine conditions

A. Diabetes mellitus
B. Hyperlipidaemia
C. Hypertension
D. Obesity
E. Osteoporosis

1) Cancer

A) Female breast cancer

Table 1A(i). Summary of recommended screening tests

Category	Screening test
Category 1	Mammography
Category 2	Magnetic resonance imaging (MRI) breast as an adjunct to mammography
Category 3	• Ultrasound breast • Tumour markers (e.g., CEA and CA15-3)

Table 1A(ii). Category 1 screening tests (suitable for population-level screening)

Recommended screening component	Description	
Population	General population[a]	
Age (years)	40-49	50-74
Test	Mammography	
Frequency	Annually	Every 2 years

[a] Women with cosmetic injection augmentation are considered to have the same risk as women in the general population, and their recommended age and frequency of screening should follow the screening guideline for women in the general population. However, their recommended screening test would be MRI breast instead of mammography, particularly for women with free silicon type cosmetic injection augmentation.

Table 1A(iii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups		
		Female carriers of BRCA	a) Female carriers of other high-risk genetic mutations[b], and b) Women with strong family history of breast cancer but no proven genetic mutation[c]	Women with previous history of chest radiation therapy (e.g. Hodgkin disease)
Recommended screening component	**Age (years)**	Start at age 25-30	Start 5-10 years prior to the age of onset in the youngest affected female family member to have contracted breast cancer, but not earlier than age 30 years	-
	Test	MRI breast screening as an adjunct to mammography[c,d]		
	Frequency	Every 1-2 years		

[b] Women with pathogenic mutations (e.g., TP53) should consult specialists on the screening modality.

[c] This includes both women who have undergone genetic testing and no pathogenic variants were detected and women who have never been genetically tested. Mammogram screening should still be performed alongside MRI breast as some cancers which manifest as micro-calcifications on mammography may not be detected on MRI. MRI breast cannot replace mammographic screening in these women.

[d] Mammogram has a lower sensitivity in denser breast tissues which is common in younger women and is not recommended for women age < 30 years. MRI breast is preferred for this age group as it provides better detection of aggressive and BRCA1/2-associated tumours prevalent in younger females and minimise cumulative radiation exposure.

B) Cervical cancer

Table 1B(i). Summary of recommended screening tests

Category	Screening test
Category 1 and 2	• Pap test, or • Human papillomavirus (HPV) test

Table 1B(ii). Category 1 screening tests (suitable for population-level screening)

Recommended screening component	Description	
Population	All women who have ever had sexual intercourse	
Age (years)	25-29	≥ 30[a]
Test	Pap test	HPV testing
Frequency	Every 3 years	Every 5 years

[a] No upper age limit is recommended, but a woman can be discharged from screening at age 69 years if she has had two previous negative screens in the last 10 years, with the most recent test occurring within last 5 years.

Table 1B(iii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups	
		Immunocompromised women: • Women with HIV, • Women with primary immunodeficiency syndromes, • Women who have undergone solid organ or haematopoietic stem cell transplant, and • Women who have clinical conditions requiring them to take at least one immunosuppressive medication long-term other than steroids (e.g. anti-metabolites, calcineurin and mTOR inhibitors, and biologics)	
Recommended screening component	**Age (years)**	25-29	≥ 30
	Test	Pap test	HPV test
	Frequency	Annually	Every 3 years

C) Colorectal cancer

Table 1C(i). Summary of recommended screening tests

Category	Screening test
Category 1	• Faecal immunochemical test (FIT), or • Colonoscopy
Category 2	• Colonoscopy • Computed tomography (CT) colonography[a], or • Faecal immunochemical test (FIT)–DNA test[b]
Category 3	• Carcinoembryonic antigen (CEA) • Abdominal X-ray (AXR) • CT abdomen • Methylated SEPT9 DNA test

[a] CT colonography, also known as virtual colonoscopy, is a minimally invasive imaging examination of the colon and rectum, using CT scan to acquire images and computer software to process the data for interpretation. It is the best available imaging test if optical colonoscopy is contraindicated or incomplete.

[b] As an alternative screening test to FIT stool analysis for average-risk individuals aged ≥ 50 years. The recommended frequency for individuals who opt for FIT-DNA test is once every 3 years if initial screening is negative.

Table 1C(ii). Category 1 screening tests (suitable for population-level screening)

Recommended screening component	Description	
Population	General population	
Age (years)	≥ 50[c]	
Test [a]	FIT[c]	Colonoscopy[d]
Frequency	Annual	Every 5-10 years

[c] Either the FIT or colonoscopy may be used in this age group.

[c] FIT may be used as the first-line option for individuals in the older age groups as it is less invasive than colonoscopy.

[d] Flexible sigmoidoscopy may be considered as a second-line alternative to colonoscopy in certain circumstances, based on clinical discretion. Refer to additional information for further guidance.

Table 1C (iii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups						
		Family history of colorectal cancer in • First degree relative (parent, sibling) age ≤ 60 years, or • ≥ 2 first degree relatives	Family history of colorectal cancer in first degree relative age > 60 years	Family history of confirmed advanced adenoma(s) or advanced sessile serrated polyps (SSPs)/sessile serrated lesion (SSLs) in first degree relative at any age	Personal history of cancers associated with Lynch syndrome such as ovarian or endometrial cancer	Family history of familial adenomatous polyposis (FAP)	Family history of hereditary non-polyposis colorectal cancer (as defined by Amsterdam II[f] or Bethesda criteria[g]) and/or Lynch syndrome	Personal history of inflammatory bowel disease (a) left-sided colitis, (b) pan-colitis
Recommended screening component	**Age (years)**	10 years prior to the youngest case in the family or at age 40, whichever is earlier	From age 50	From age 40, or at the age the relative was diagnosed, whichever is earlier	After resection of the uterus and/or ovaries	From age 10-12[e]	From age 20-25	(a) From 15th year of diagnosis (b) From 8th year of diagnosis
	Test	Colonoscopy						
	Frequency	Every 5 years	Every 5-10 years	Every 5-10 years, if the results continue to be normal	-	Annually	Every 1-2 years	

[e] Flexible sigmoidoscopy from age 10 to 12 years (puberty) until adenomas are identified, upon which screening is switched to colonoscopy.

[f] Amsterdam II criteria: ≥ 3 relatives with a Lynch syndrome-related cancer (colorectal, endometrial, small bowel, ureter, or renal pelvis) and meet the following additional criteria:

- ≥ 2 successive generations affected.
- One is a first-degree relative of the other two.
- ≥ 1 relative was diagnosed age < 50 years.
- No evidence of FAP.
- Tumours are verified by pathological examination.

[g] Bethesda criteria:

- Colorectal cancer diagnosed in a patient age < 50 years.
- Presence of synchronous or metachronous, colorectal, or other Lynch syndrome-related tumours, regardless of age.
- Colorectal cancer with microsatellite instability (tumour-infiltrating lymphocytes, Crohn-like lymphocytic reaction, mucinous or signet-ring differentiation, or medullary growth pattern).
- Colorectal cancer diagnosed in a patient with ≥ 1 first-degree relatives with a Lynch syndrome-related cancer, with one of the cancers diagnosed age < 50 years.
- Colorectal cancer is diagnosed in a patient with ≥ 2 first- or second-degree relatives with Lynch syndrome-related cancers regardless of age.

D) Lung cancer

Table 1D(i). Summary of recommended screening tests

Category	Screening test
Category 2	Low-dose computed tomography scan (LDCT)
Category 3	• Tumour marker for lung cancer • Chest X-ray

Table 1D(ii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups
		Individuals with ≥ 20 pack-years smoking history, and are currently smoking or had quit smoking ≤ 15 years ago
Recommended screening component	**Age (years)**	50-80
	Test	LDCT
	Frequency	• Annually • Discontinue screening once the individual has quit smoking for > 15 years

2) Metabolic, nutritional, and endocrine conditions

A) Diabetes mellitus

Table 2A(i). Summary of recommended screening tests

Category	Screening test
Category 1 and 2	• Fasting plasma glucose (FPG), or • Glycosylated haemoglobin (HbA1c)

Table 2A(ii). Category 1 screening tests (suitable for population-level screening)

Recommended screening component	Description
Population	General population
Age (years)	≥ 40
Test	• FPG, or • HbA1c[a]
Frequency	Every 3 years

[a] HbA1c is not suitable for use in individuals with the following medical condition and/or physiological states: Haemoglobinopathies including thalassemia, iron deficiency anaemia, vitamin B12/folate deficiency, recent blood loss, haemolytic anaemia, recent blood transfusion, chronic renal failure, chronic liver disease and pregnancy.

Table 2A (iii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups
		Individuals with risk factors for diabetes mellitus[b]
Recommended screening component	**Age (years)**	Considered in adults of any age if any of the risk factors for diabetes mellitus is present (Table 2A (iv))
	Test	• FPG, or • HbA1c
	Frequency	-

[b] For individuals with either impaired fasting glucose (IFG) or impaired glucose tolerance (IGT), refer to the clinical management guidelines for these conditions found in the Appropriate Care Guide by the Agency for Care Effectiveness or the Healthier SG Care Protocols.

Table 2A (iv). Risk factors for diabetes mellitus

1. Overweight (Body Mass Index - 23.0 - 27.4kg/m^2) / Obese (Body Mass Index ≥ 27.5 kg/m^2)
2. Hypertension (≥ 140/90 mmHg) or on therapy for hypertension
3. First degree relative with diabetes mellitus
4. Women who have delivered a baby ≥ 4 kg; or previously diagnosed with gestational DM
5. History of cardiovascular disease
6. Women with polycystic ovary disease
7. Patients who are diagnosed to have tuberculosis
8. HDL level < 1.0 mmol/L (male), < 1.3 mmol/L (female) and/or triglyceride level ≥ 2.2 mmol/L
9. IFG or IGT on previous testing
10. High-risk race/ethnicity
11. Patients on drugs that can elevate or contribute to the risk of DM, but are not medications typically used to treat DM (e.g., Metformin) such as:
    - Statins
    - Niacin
    - Thiazide diuretics
    - ß-blockers
    - Glucocorticoids
    - Anti-psychotics

B) Hyperlipidaemia

Table 2B (i). Summary of recommended screening tests

Category	Screening test
Category 1	• Fasting lipids[a], or • Non-fasting lipids[a]

[a] In the non-fasted state, triglyceride (TG) levels may be slightly higher than the corresponding levels in the fasted state. For Low Density Lipoprotein – Cholesterol (LDL-C), the levels may be slightly lower in the non-fasted state as compared to the corresponding levels in the fasted state. Population-based studies suggest that the variation in TG levels ranges from +0.1mmol/L to +0.3mmol/L while that the LDL-C ranges from -0.3mmol/L to -0.1mmol/L. A repeat fasting lipid panel may be considered in cases where there is uncertainty surrounding a non-fasted lipid panel results.

Table 2B (ii). Category 1 screening tests (suitable for population-level screening)

Recommended screening component	Description
Population	General population
Age (years)	≥ 40
Test	• Fasting lipids[a] or • Non-fasting lipids[a]
Frequency	Every 3 years

Table 2B (iii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups	
		Individuals with other risk factors for cardiovascular disease (CVD): • > 1 risk factor (e.g. tobacco use, hypertension, impaired fasting glucose or impaired glucose tolerance) • A family history of cardiovascular disease age < 50 years in male relatives or age < 60 years in female relatives	Individuals who are at very high or high cardiovascular risk[b]: • Atherosclerotic cardiovascular disease[c] • Diabetes mellitus • Chronic kidney disease • Singapore-modified Framingham Risk Score 2023 (SG-FR-2023)[d] score >20% • A family history suggestive of familial hypercholesterolaemia[e]
Recommended screening component	**Age (years)**	≥ 18	
	Test	• Fasting lipids[a] or • Non-fasting lipids[a]	
	Frequency	Every 3 years	Annually

[b] With reference to the 2023 Agency for Care Effectiveness Clinical Guideline on Lipid management – Focus on cardiovascular risk, Version 1.1.

[c] Includes history of acute coronary syndrome [myocardial infarction, unstable angina], stable ischemic heart disease/chronic coronary syndrome, ischaemic stroke, transient ischemic attack, peripheral arterial disease, abdominal aortic aneurysm, post-coronary artery bypass grafting, post-percutaneous coronary intervention

[d] Refer to the MOH ACE Clinical Guidance "Lipid management: focus on cardiovascular risk" and "Hypertension – tailoring the management plan to optimise BP control, additional resources, for the SG-FR-2023. Available at: https://isomer-user-content.by.gov.sg/68/38ea8dcc-ef4f-422d-a717-0d4b670d2f9f/additional-resource-for-CV-risk-assessment-using-SG-FRS-2023.pdf.

[e] First degree relatives of patients with familial hypercholesterolaemia are recommended to undergo cascade screening. Clinicians can refer to MOH Circular No. 53/2025: Introduction of familial hypercholesterolaemia Genetic Testing Service, for more information.

C) Hypertension

Table 2C (i). Summary of recommended screening tests

Category	Screening test
Category 1 and 2	Blood pressure (BP) measurement

Table 2C (ii). Category 1 screening tests (suitable for population-level screening)

Recommended screening component	Description
Population	General population
Age (years)	≥ 18
Test	BP measurement
Frequency	Opportunistically, and at least annually

Table 2C (iii). Category 2 screening tests (suitable for high-risk group screening)

		High-risk groups
		Individuals with higher BP or a major coronary risk factor
Recommended screening component	**Age (years)**	≥ 18
	Test	BP measurement
	Frequency	Appropriate age and frequency of screening should be based on clinical discretion

Risk factors for hypertension

1. Individuals with major coronary risk factors (e.g. diabetes mellitus)
2. Chronic kidney disease
3. Obesity
4. Lifestyle risk factors e.g. heavy alcohol consumption and/or smoking

D) Obesity

Table 2D (i). Summary of recommended screening tests

Category	Screening test
Category 1	• Body mass index (BMI) • Waist circumference
Category 3	Body fat measurement

Table 2D (ii). Category 1 Screening Tests (suitable for population-level screening)

Recommended screening component	Description
Population	General population
Age (years)	≥18
Test	• Body mass index (BMI) • Waist circumference
Frequency	Annually

E) Osteoporosis/osteopenia

Table 2E (i). Summary of recommended screening tests

Category	Screening test
Category 2	Bone mineral density (BMD) scan
Category 3	• Serum calcium • Erythrocyte sedimentation rate (ESR) • Serum phosphate • Quantitative ultrasound scan (QUS) of the calcaneum

Table 2E (iia). Category 2 screening tests (suitable for high-risk group screening) – women

		Women		
		Low risk	**Moderate risk**	**High risk**
		Osteoporosis Self-Assessment Tool for Asians (OSTA) score <0 [a,b]	OSTA score 0 – 20 [a,b]	OSTA score > 20 [a,b]
Recommended screening component	**Age (years)**	Risk assessment with OSTA to begin at age 50 or postmenopausal, whichever is earlier		
	Test	Not recommended for BMD scan unless there are other strong clinical indications	BMD scan if any other risk factor(s) for osteoporosis is present (refer to table 2E (iib))	BMD scan
	Frequency	Risk assessment with OSTA for osteoporosis/osteopenia should be considered every 5 years		

[a] The Osteoporosis Self-Assessment Tool for Asians (OSTA) is a simple age- and weight-based tool to estimate osteoporosis risk. It is used only for Asian women. For women of other ethnicities (e.g. Caucasian women, the Osteoporosis Self-Assessment Tool (OST), may be used with reference to OST thresholds or clinical discretion for determining the risk of osteoporosis.

[b] Formula for OSTA score: age (years) - weight (kg).

Table 2E (iib). Category 2 screening tests (suitable for high-risk group screening) - men

		Men
		There is currently no evidence-based risk assessment tool recommended for men. Risk assessment for men is to be based on clinical and lifestyle risk factors (please see Table 2E (iii))
Recommended screening component	**Age**	Risk assessment to begin at age 65
	Test	Recommendation for BMD screening will be based on clinical discretion following risk assessment
	Frequency	Risk assessment for osteoporosis/osteopenia should be considered every 5 years

Table 2E (iii). Risk factors for osteoporosis

Clinical conditions
1. Early natural or surgical menopause age < 45 years, or prolonged premenopausal amenorrhea lasting > 1 year 2. Use of medication (e.g. corticosteroids (equivalent to prednisolone > 7.5 mg/day for > 6 months), excess thyroxine, anticonvulsants, proton pump inhibitors, aromatase inhibitors, gonadotropin-releasing hormone therapy) 3. Ongoing disease conditions (e.g. diabetes mellitus, hypogonadism, hyperthyroidism, hyperparathyroidism, Cushing's syndrome, chronic obstructive airway diseases, liver disease, malabsorption, chronic renal failure, rheumatoid arthritis, organ transplantation and anorexia nervosa) 4. Prolonged immobilisation, poor health, frailty, or sarcopenia
Modifiable risk factors
5. Current cigarette smoking 6. Daily alcohol consumption of > 2 units for men, and > 1 unit for women 7. Low elemental calcium intake (< 800mg/day for adults ≤ 50 years old, < 1000mg/day for adults ≥ 51 years old) 8. Lack of regular physical activity[c] 9. Low body mass index
Non-modifiable risk factors
10. History of osteoporosis and/or fragility fracture[d] in a first degree relative (especially maternal) 11. Older age

[c] Refer to the Singapore Physical Activity Guidelines for adults (age 18 to 64 years) and for older adults (age ≥ 65 years), for guidelines on adequate physical activity. *Sport Singapore and Health Promotion Board. Singapore Physical Activity Guidelines (SPAG). 2022. Available at: https://www.healthhub.sg/programmes/letsmoveit/singapore-physical-activity-guidelines*.

[d] A fracture (including but not limited to the vertebra, hip, femur, pelvis, humerus, or wrist) that occurs despite sustaining only minimal trauma (e.g. a fall from standing height or less) or no identifiable trauma. Asymptomatic vertebral fractures are common fragility fractures that may present as changes in the shape and size of the vertebral body, with or without vertebral height loss. Skull, facial bone, metacarpal, metatarsal and phalangeal fractures are not considered osteoporotic or fragility fractures. *Agency for Care Effectiveness (ACE). Osteoporosis: diagnosis and management. ACE Clinical Guidance (ACG), Ministry of Health, Singapore; 2025. Available at:* go.gov.sg/acg-osteoporosis.

ANNEX A: Additional information

1A. Female breast cancer

Lowering the starting age of population-level breast cancer screening – The recommendation to lower the starting age for population-level breast cancer screening to 40 years was based on evidence from recent studies and observed disease trends. A 2021 local study found that screening from age 40 years is cost-effective, particularly with higher participation.[5] International studies report overdiagnosis and false-positive rates below 10% in this age group, compared to 11.6% across all ages,[6-9] supporting the appropriateness of earlier screening. Annual screening is recommended over biennial screening for women aged 40-49 years as these women tend to have a higher breast density which can reduce mammography sensitivity, and breast cancers tend to be more aggressive for this age group. This aligns with recommendations from the American Society of Breast Surgeons[10] and the National Comprehensive Cancer Network for annual screening in women aged 40-49 years.[11]

Raising the upper age limit for population-level breast cancer screening – The recommendation to extend the upper age limit for population-level breast cancer screening from 69 to 74 years is driven by evidence reflecting changing disease patterns and potential for improved health outcomes in older women. A local study has demonstrated that screening remains cost-effective up to age 79 years, supporting the extension of screening to older age groups.[5] Furthermore, screening beyond age 69 years is associated with reduced breast cancer mortality for women in their late 70s who have lower levels of comorbidities,[12-15] suggesting meaningful benefits for healthier individuals. Given that there is insufficient evidence to fully assess the benefits versus harms of screening mammography in women aged 75 years and older, as noted in U.S. Preventive Services Task Force (USPSTF) recommendations,[16] the upper age limit for routine screening has been set at 74 years to balance the potential benefits of early detection with the need for further research in older populations.

MRI breast – MRI breast is considered a Category 2 test. However, in women with diffuse breast injection augmentation, particularly of the free silicone type, the injected material may significantly obscure mammographic and sonographic visibility of the underlying breast tissue. This renders mammogram and ultrasound assessments ineffective for breast cancer screening. Hence, MRI should replace mammogram screening in these cases. The recommended age and frequency of screening are similar to the mammogram screening guidelines for normal risk women.[17-20]

Ultrasound breast – Ultrasound breast is considered a Category 3 test. In women with dense breasts, adjunct ultrasound screening increases the breast cancer detection yield compared to mammogram screening alone.[21,22] However, this is associated with a significant rise in false positives and in the use of additional healthcare resources for the work-up of added breast findings, most of which will be benign and not clinically significant. Moreover, there are no survival data available. In view of its uncertain overall benefit, the routine use of adjunct ultrasound screening is not recommended.

1B. Cervical cancer

Retention of Pap test for screening women age 25 - 29 years – There was insufficient evidence to recommend HPV testing as an option for women aged 25 - 29 years due to the high prevalence of HPV infection in this age group, which would result in many false positive test results that do not indicate clinically significant disease.[23-27] However, HPV testing for this age group may be considered in the next review if there is sufficient evidence demonstrating that the effectiveness of HPV testing in this group is comparable to those aged ≥ 30 years.

Immunocompromised women identified as a high-risk group – Based on a review of international guidelines, there was a lack of consensus on the definition of high-risk groups apart from immunocompromised women.[28-34] In alignment with international guidelines, women who are immunocompromised due to the presence of HIV infection, primary immune deficiency syndromes, or history of solid organ or haematopoietic stem cell transplant, have been added as high-risk individuals. Additionally, women who have conditions requiring them to take at least one immunosuppressive medication long-term other than steroids (e.g. anti-metabolites, calcineurin and mTOR inhibitors, and biologics) were also included.

1C. Colorectal cancer

Guidance on the use of flexible sigmoidoscopy as an alternative to colonoscopy – Flexible sigmoidoscopy had been recommended for colorectal cancer screening in several countries based on evidence of its effectiveness in reducing colorectal cancer risk and mortality, as well as its lower resource demands and adverse events rates compared to colonoscopy.[35-40] However, when compared to colonoscopy, flexible sigmoidoscopy was less clinically effective at detecting colorectal cancers, and at reducing colorectal cancer incidence and mortality.[41-48] Hence, it is not recommended on par with colonoscopy, and clinical discretion should be exercised in its use.

Removal of individuals with personal history of colorectal polyps or personal history of colorectal malignancy from the list of high-risk groups to screen – Testing of individuals with personal history of colorectal polyps and personal history of colorectal malignancy would be considered as management of the primary pathology in individuals with a precursor and personal history of the disease respectively. This is not considered screening. For recommendations on the management of patients with personal history of polyps or colorectal malignancy, please refer to the clinical management guidelines by the Asia-Pacific Working Group on Colorectal Screening and the National Comprehensive Cancer Network.[49,50]

Addition of individuals with 'Family history of confirmed advanced adenoma(s) or advanced Sessile Serrated Polyps (SSPs)/Sessile Serrated Lesion (SSLs) in first degree relative at any age' as a high-risk group – The addition of this high-risk group aligns with the National Comprehensive Cancer Network (NCCN) recommendations which states that "advanced SSPs/SSLs are generally considered to have comparable cancer risk and are managed similarly to advanced adenomas. While there is limited data concerning the specific risk of colorectal cancer in first-degree relatives of individuals with advanced serrated polyps, it is reasonable to follow the same recommendations used for first-degree relatives of those with advanced adenomas."[50]

Modification to the phrasing of the risk factor 'personal history of ovarian or endometrial cancer' to 'personal history of cancers associated with Lynch syndrome such as endometrial or ovarian cancer' – The modification recognises that multiple cancers, beyond endometrial and ovarian cancers, are associated with Lynch Syndrome. The examples provided within are non-exhaustive.

Modification to the phrasing of the risk factor 'Family history of hereditary non-polyposis colorectal cancer (Lynch Syndrome)' to 'Family history of hereditary non-polyposis colorectal cancer (as defined by Amsterdam II or Bethesda criteria) and/or Lynch Syndrome' – This modification clarifies the distinction between 'hereditary non-polyposis colorectal cancer (HPCC)' and 'Lynch syndrome'. HPCC is clinically diagnosed based on Amsterdam II or Bethesda criteria, while Lynch syndrome is a genetic diagnosis based on the presence of germline pathogenic variants in DNA mismatch repair (MMR) genes MLH1, MSH2, MSH6, PMS2, or EPCAM.

1D. Lung cancer

Updated the screening criteria by expanding the age range to 50-80 years, lowering the number of pack-years to 20 or more years, and including those who have quit 15 years ago – This aligns with local[51] and international[52-57] lung cancer screening guidelines, including the U.S. Preventive Services Task Force recommendations.[55]

Current evidence for lung cancer in non-smokers – Lung cancer may also occur in never-smokers, particularly among East Asian females.[58,59] However, current evidence, both on clinical and cost-effectiveness, is insufficient to support routine LDCT screening in never-smokers. Clinicians should remain aware of this evolving evidence base and continue to apply established screening criteria, while individualised clinical assessment and shared decision-making may be considered on a case-by-case basis, with appropriate counselling regarding potential harms and uncertainties.

2A. Diabetes mellitus

Starting age to screen – Internationally, the starting age to screen for individuals in the general population ranges from 35 - 45 years.[60-65] The starting age of 40 years remains appropriate for Singapore, this is similar to Australia, Canada and Taiwan.[63-65] Between 2010 and 2022, the prevalence of diabetes mellitus in individuals < 40 years has consistently remained < 5% in Singapore.[66]

Fasting plasma glucose (FPG) and glycosylated haemoglobin (HbA1c) – The recommendation to retain FPG and HbA1c tests as Category 1 tests was based on a review of international guidelines,[60-65,67] which indicated that these tests were both clinically effective and cost-effective for diabetes mellitus screening. This classification supports their continued use as primary tools in early detection and management.

Risk factor – The recommendation to include 'patients on medications that can elevate or contribute to the risk of diabetes mellitus' as a risk factor aligns with international standards.[62-65,68,69] This approach ensures that individuals with potential drug-related risk factors are appropriately identified and monitored for early intervention. Although some international guidelines list 'sedentary lifestyle' as a factor that places individuals at higher risk for diabetes mellitus, the term itself is too broad, imprecise, and challenging to quantify consistently. In view of its limited use for identifying individuals for high-risk screening, 'sedentary lifestyle' has been excluded as a risk factor in the recommendations.

2B. Hyperlipidaemia

Addition of "individuals with chronic kidney disease" and "individuals with Singapore-modified Framingham Risk Score 2023 > 20%" as high or very high-risk groups to screen – This addition aligns with current international and local guidelines.[63,70-74]

2C. Hypertension

Blood pressure (BP) measurement as a Category 1 test – The recommendation to retain BP measurement as a Category 1 test is due to its widespread use, ease of access, and minimal technical skill required to perform the measurement.

Screening frequency – Most international guidelines do not specify a particular age or frequency for hypertension screening in the general population. However, in Singapore, the overall rising prevalence across most age groups[66] supports the recommendation to offer opportunistic screening for adults aged ≥ 18 years, even though the prevalence of hypertension among those aged 18–39 years has remained < 20%.

Changes in the definition of high-risk groups – The recommendation that the age and frequency of screening is based on clinical discretion is due to high variability among high-risk patients in terms of co-morbidities and risk of disease. Furthermore, international guidelines are mixed on whether a standardized screening frequency or age for high-risk individuals is specified, with some leaving it to clinical judgment.[63,75-78]

High-normal BP (diastolic blood pressure 85-89 mmHg or systolic blood pressure of 130-139 mmHg) has been removed as a risk factor in STRC screening recommendations. High-normal BP is a precursor of hypertension, and BP measurement in individuals with high-normal BP is considered as clinical management for the condition.

The recommendation to include chronic kidney disease and obesity as risk factors for hypertension is supported by consistent evidence in the literature highlighting their strong association with elevated BP. Furthermore, both conditions are widely recognized as significant risk factors in international guidelines.[76-79]

Although lifestyle factors (e.g. high-sodium diet, low intake of fruits and vegetables, or caffeine consumption, physical inactivity, and high stress levels) are identified as risk factors for hypertension in some international guidelines, verifying and quantifying these factors pose significant challenges. As such, these have been excluded in the STRC recommendations.

2D. Obesity

Retention of screening test categorisation and the age to start screening – The recommendation to retain body mass index and waist circumference as Category 1 tests was based on their widespread global use, the ability to compare standardised parameters across populations, and the extensive research that uses these indicators as benchmarks. Conversely, due to the lack of strong evidence supporting body fat measurement as a screening tool for the general population, it remains classified as a Category 3 test.

The age to start screening for obesity screening remains as 18 years old. While the literature provides comprehensive information on the definition of obesity and guidelines for screening, there are no definitive recommendations on lower age limit for the general population. Furthermore, there is currently insufficient evidence to suggest a need to change the lower screening age limit.

2E. Osteoporosis/osteopenia

Inclusion of a starting age (i.e. 50 years old) for osteoporosis/osteopenia risk assessment in women – The starting age of 50 years old was added based on local epidemiological data.

Inclusion of a starting age (i.e. 65 years old) for osteoporosis/osteopenia risk assessment in men – The starting age of 65 years old was added based on local epidemiological data showing a significant risk of hip fracture among older men, and aligns with the MOH ACG on osteoporosis.[80] Age 65 years was selected as it represents the point at which men experience progressive increase in fracture risk due to age-related bone loss and declining bone mineral density. This age threshold balances the need for early identification of at-risk individuals with the practical considerations of screening efficiency, ensuring that resources are directed towards the population most likely to benefit from osteoporosis screening and subsequent prevention interventions.

Recommendation to consider risk assessment for osteoporosis/osteopenia every five years – Although there was insufficient evidence in international guidelines to support a specific frequency of risk assessment,[81-89] a five-yearly interval was recommended to account for the natural rate of bone mineral density loss, as well as to ensure that clinicians would consider risk assessment for osteoporosis/osteopenia at regular intervals.

Addition of proton pump inhibitors, aromatase inhibitors and gonadotropin-releasing hormone therapy to the list of examples of medications associated with increased osteoporosis risk – These medications are associated with increased risk of osteoporosis.[90-95] [96,97]

Addition of diabetes mellitus to the list of examples of disease conditions associated with increased risk of osteoporosis – There was strong evidence to support an association between diabetes mellitus and increased risks of osteoporosis and fracture.[98-101]

Addition of frailty and sarcopenia to the list of prolonged medical conditions associated with increased risk of osteoporosis – These conditions have established associations with increased risks of osteoporosis and fracture.[102-107]

Thresholds for alcohol consumption and low elemental calcium intake were specified, reference was made to the Singapore Physical Activity Guidelines, and 'low body weight' was rephrased as 'low body mass index' – These changes were made to provide more specific guidance for clinicians.

Removal of personal history of previous fracture as an adult from the list of risk factors – The presence of a previous fracture (of any type) does not necessarily correlate with osteoporosis (e.g., in the scenario of high-impact fracture). Additionally, personal history of fragility fracture falls outside the scope of screening as the presence of fragility fracture is a diagnostic and not screening criteria.

ANNEX B: Categorisation of screening tests by type

A) General
B) Blood (non-tumour markers)
C) Blood (tumour markers)
D) Stool
E) Imaging: X-Ray, ultrasound, Computed Tomography (CT), Magnetic Resonance Imaging (MRI)
F) Special

A) General

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	1	Blood pressure measurement	Hypertension	Table 2C(ii)
2	1	Body mass index	Obesity	Table 2D(ii)
3	1	Waist circumference	Obesity	Table 2D(ii)
4	2	Blood pressure measurement	Hypertension	Table 2C(iii)
5	3	Body fat measurement	Obesity	Table 2D(i)

B) Blood (non-tumour markers)

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	1	Fasting plasma glucose	Diabetes mellitus	Table 2A(ii)
2	1	Glycosylated haemoglobin	Diabetes mellitus	Table 2A(ii)
3	1	Fasting lipids	Hyperlipidaemia	Table 2B(ii)
4	1	Non-fasting lipids	Hyperlipidaemia	Table 2B(ii)
5	2	Fasting plasma glucose	Diabetes mellitus	Table 2A(iii)
6	2	Glycosylated haemoglobin	Diabetes mellitus	Table 2A(iii)
7	2	Fasting lipids	Hyperlipidaemia	Table 2B(iii)
8	2	Non-fasting lipids	Hyperlipidaemia	Table 2B(iii)
9	3	Serum calcium	Osteoporosis/osteopenia	Table 2E(i)
10	3	Erythrocyte sedimentation rate	Osteoporosis/osteopenia	Table 2E(i)
11	3	Serum phosphate	Osteoporosis/osteopenia	Table 2E(i)

C) Blood (tumour markers)

Category of screening tests (NOT RECOMMENDED AS SCREENING TESTS)

S/N	Category	Screening test	Disease/condition	Details (see)
1	3	Tumour marker for breast (e.g., CEA and CA15-3)	Breast cancer	Table 1A(i)
2	3	Carcinoembryonic antigen	Colorectal cancer	Table 1C(i)
3	3	Methylated SEPT9 DNA Test	Colorectal cancer	Table 1C(i)
4	3	Tumour marker for lung cancer	Lung cancer	Table 1D(i)

D) Stool

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	1	Faecal immunochemical test	Colorectal cancer	Table 1C(ii)
2	2	Faecal immunochemical test–DNA test	Colorectal cancer	Table 1C(i)

E) Imaging: X-ray, ultrasound, Computed Tomography (CT), Magnetic Resonance Imaging (MRI)

i) X-ray

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	1	Mammography	Breast cancer	Table 1A(ii)
2	2	Bone mineral density scan	Osteoporosis/osteopenia	Table 2E(ii)
3	3	Abdominal X-ray	Colorectal cancer	Table 1C(i)
4	3	Chest X-ray	Lung cancer	Table 1D(i)

ii) Ultrasound

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	3	Ultrasound breast	Breast cancer	Table 1A(i)
2	3	Quantitative ultrasound scan of the calcaneum (QUS)	Osteoporosis/osteopenia	Table 2E(i)

iii) CT

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	2	CT colonography	Colorectal cancer	Table 1C(i)
2	2	Low-dose CT	Lung cancer	Table 1D(ii)
3	3	CT abdomen	Colorectal cancer	Table 1C(i)

iv) MRI

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	2	Magnetic resonance imaging breast	Breast cancer	Table 1A(iii)

F) Special

Category of screening tests

S/N	Category	Screening test	Disease/condition	Details (see)
1	1	Pap test for women aged 25-29 years	Cervical cancer	Table 1B(ii)
2	1	Human papillomavirus (HPV) testing for women aged 30 years and above	Cervical cancer	Table 1B(ii)
3	1	Colonoscopy	Colorectal cancer	Table 1C(ii)
4	2	Pap test for women aged 25-29 years	Cervical cancer	Table 1B(iii)
5	2	Human papillomavirus (HPV) testing for women aged 30 years and above	Cervical cancer	Table 1B(iii)
6	2	Colonoscopy	Colorectal cancer	Table 1C(iii)

ANNEX C: List of Category 1 screening tests

S/N	Screening test	Disease/condition	Age group
1	Blood pressure measurement	Hypertension	Individuals aged ≥ 18 years
2	Body Mass Index (BMI)	Obesity	Individuals aged ≥ 18 years
3	Colonoscopy	Colorectal cancer	Individuals aged ≥ 50 years
4	Faecal immunochemical test (FIT)	Colorectal cancer	Individuals aged ≥ 50 years
5	Fasting lipids	Hyperlipidaemia	Individuals aged ≥ 40 years
6	Fasting plasma glucose (FPG)	Diabetes mellitus	Individuals aged ≥ 40 years
7	Glycosylated haemoglobin (HbA1c)	Diabetes mellitus	Individuals aged ≥ 40 years
8	Human papillomavirus (HPV) testing	Cervical cancer	Women aged ≥ 30 years who have ever had sexual intercourse
9	Mammography	Breast cancer	Women aged 40-49 years (annually); Women aged 50-74 years (every 2 years).
10	Non-fasting lipids	Hyperlipidaemia	Individuals aged ≥ 40 years
11	Pap test	Cervical cancer	Women aged 25-29 years who have ever had sexual intercourse
12	Waist circumference	Obesity	Individuals aged ≥ 18 years

ANNEX D: List of Category 2 screening tests

S/N	Screening test	Disease/condition	High-risk Group(s)
1	Blood pressure (BP) measurement	Hypertension	Individuals with higher BP or a major coronary risk factor
2	Bone mineral density (BMD) scan	Osteoporosis/ osteopenia	Individuals with high Osteoporosis risk e.g. high OSTA score
3	Colonoscopy	Colorectal cancer	• Family history of colorectal cancer in first degree relative (parent, sibling) age ≤ 60 years, or ≥ 2 first degree relatives; • Family history of colorectal cancer in first degree relative age of > 60 years; • Family history of confirmed advanced adenoma(s) or advanced sessile serrated polyps (SSPs)/sessile serrated lesion (SSLs) in first degree relative at any age; • Personal history of cancers associated with Lynch syndrome such as ovarian or endometrial cancer; • Family history of familial adenomatous polyposis (FAP); • Family history of hereditary non-polyposis colorectal cancer (as defined by Amsterdam II or Bethesda criteria) and/or Lynch syndrome; • Personal history of inflammatory bowel disease (a) left-sided colitis, (b) pan-colitis
4	Computed tomography (CT) colonography	Colorectal cancer	Individuals aged ≥ 50 years not going for screening colonoscopy or FIT
5	Faecal immunochemical test (FIT)– DNA test	Colorectal cancer	Individuals aged ≥ 50 years
6	Fasting lipids	Hyperlipidaemia	Individuals with other risk factors for cardiovascular disease • > 1 risk factor (e.g. tobacco use, hypertension, impaired fasting glucose or impaired glucose tolerance) • A family history of cardiovascular disease age < 50 years in male relatives or age < 60 years in female relatives Or Individuals who are at very high or high cardiovascular risk:

			• Atherosclerotic cardiovascular disease • Diabetes mellitus • Chronic kidney disease • Singapore-modified Framingham Risk Score 2023 (SG-FR-2023) score >20% • A family history suggestive of familial hypercholesterolaemia
7	Fasting plasma glucose (FPG)	Diabetes mellitus	Individuals with risk factors for diabetes mellitus
8	Glycosylated haemoglobin (HbA1c)	Diabetes mellitus	Individuals with risk factors for diabetes mellitus
9	Human papillomavirus (HPV) testing	Cervical cancer	Immunocompromised women (≥ 30): • Women with HIV • Women with primary immunodeficiency syndromes • Women who have undergone solid organ or haematopoietic stem cell transplant • Women who have clinical conditions requiring them to take at least one immunosuppressive medication long-term other than steroids (e.g. anti-metabolites, calcineurin and mTOR inhibitors, and biologics)
10	Low-dose computed tomography (LDCT) scan	Lung cancer	Individuals with ≥20 pack-years smoking history, and are currently smoking or had quit smoking ≤15 years ago
11	Magnetic resonance imaging (MRI) breast as an adjunct to mammography	Breast cancer	• Female carriers of BrCa • Female carriers of other high-risk genetic mutations and; • Women with strong family history of breast cancer but no proven genetic mutation
12	Non-fasting lipids	Hyperlipidaemia	Individuals with other risk factors for cardiovascular disease • > 1 risk factor (e.g. tobacco use, hypertension, impaired fasting glucose or impaired glucose tolerance) • A family history of cardiovascular disease age < 50 years in male relatives or age < 60 years in female relatives Or Individuals who are at very high or high cardiovascular risk: • Atherosclerotic cardiovascular disease • Diabetes mellitus

			• Chronic kidney disease • Singapore-modified Framingham Risk Score 2023 (SG-FR-2023) score >20% • A family history suggestive of familial hypercholesterolaemia
13	Pap test	Cervical cancer	Immunocompromised women: • Women with HIV • Women with primary immunodeficiency syndromes • Women who have undergone solid organ or haematopoietic stem cell transplant • Women who have clinical conditions requiring them to take at least one immunosuppressive medication long-term other than steroids (e.g. anti-metabolites, calcineurin and mTOR inhibitors, and biologics)

ANNEX E: Screening Test Review Committee

A Screening Test Review Committee, comprising clinician representatives from the Academy of Medicine, Singapore (AMS), and Working Groups, comprising clinician representatives from sub-specialties, were set up to provide expert opinion on the appropriate use of specific screening tests.

The Terms of Reference and composition of the Committee are as follows:

Terms of Reference for the Screening Test Review Committee

The Screening Test Review Committee will:

1. Provide expert opinion, based on scientific evidence, on the appropriateness of use of specific screening tests, for the early detection of disease, whether for the general population or specific sub-groups:
    a. Assist to update and ensure relevance of existing STRC guidelines;
    b. Assist to review new screening tests and develop guidelines on frequency and appropriate clinical follow-up actions for selected screening tests.
2. Make recommendations on the categorisation of commercially-available screening tests within the Screening Test Framework, based on:
    a. Careful review of published scientific evidence; and
    b. Consideration of the overall strength of evidence and the likely benefits and harms that will accrue to the person undergoing such screening.

Screening Test Review Committee

	Name	College/Chapter/Representing body
Chairman	Prof Chia Kee Seng	College of Public Health and Occupational Physicians
Members	Dr Tan Ee Shien	College of Paediatrics and Child Health
	Dr Yeo Seow Heong, George	College of Obstetricians and Gynaecologists
	Dr Janthorn Pakdeethai	Chapter of General Physicians, College of Physicians, Singapore
	Dr Michael Lim Chun Leng	Chapter of Cardiologists, College of Physicians, Singapore
	Dr Sueziani binte Zainudin	Chapter of Endocrinologists
	Dr Catherine Ong	Chapter of Infectious Diseases, College of Physicians, Singapore
	Dr Darren Lim Wan Teck	Chapter of Medical Oncologists, College of Physicians, Singapore
	Dr Amelia Santosa	Section of Clinical Immunologists and Allergists
	Dr Lynette Teo Li San	Chapter of Radiologists, College of Radiologists, Singapore
	Dr Chan Ching Wan	Chapter of General Surgeons, College of Surgeons, Singapore
	Dr Chew Ling	College of Public Health and Occupational Physicians
	Dr Raymond Seet	Chapter of Neurologists, College of Physicians Singapore
	Dr Yeo Chin Pin	Chapter of Pathologists
	Dr Ruth Lim	Director Disease Policy and Strategy Division Ministry of Health
	Dr Suraj Kumar	College of Family Physicians Singapore
	Dr Darren Seah	College of Family Physicians Singapore
Secretariat	Ms Syairah Samsudin (AMS)	
	Dr Andrea Lim Su En (MOH)	
	Mr Brandon Ng (MOH)	
	Ms Jamaica Tan (MOH)	

Screening Test Review Committee Screening Working Groups

Name	College/Chapter/Representing body	Organisation
Breast Cancer Screening Working Group		
Adjunct A/Prof Chong Bee Kiang	Divisional Chairman (Ambulatory and Diagnostic Medicine), Senior Consultant	Tan Tock Seng Hospital
Adjunct A/Prof Chan Mun Yew, Patrick	Senior Consultant, General Surgery	Tan Tock Seng Hospital
Dr Chan Ching Wan	Senior Consultant, General Surgery	Mount Elizabeth Medical Centre
Dr Teo Li San Lynette	Senior Consultant, Department of Diagnostic Imaging	National University Hospital
A/Prof Mikael Hartman	Head & Senior Consultant, Division of General Surgery (Breast Surgery), Department of Surgery	National University Hospital
Cervical Cancer Screening Working Group		
Dr Chew Ling	Group Director, Youth Preventive Service	Health Promotion Board
Dr Wong Wai Loong	Obstetrician and Gynaecologist	STO+G Women's Health Specialists
Dr Joella Ang Xiaohong	Consultant, Department of Obstetrics & Gynaecology	Singapore General Hospital
A/Prof Mihir Ananta Gudi	Senior Consultant, Department of Pathology and Laboratory Medicine	KK Women's and Children's Hospital
Colorectal Cancer Screening Working Group		
Dr Chew Ling	Group Director, Youth Preventive Service	Health Promotion Board
Dr Dennis Koh	Medical Director & Trained General Colorectal Surgeon	Colorectal Practice
Prof Tan Ker Kan	Head & Senior Consultant, Division of Colorectal Surgery, Department of Surgery	National University Hospital
Dr Chen Kok Pun	Consultant, Gastroenterology & Hepatology	Tan Tock Seng Hospital
Lung Cancer Screening Working Group		
Prof Darren Lim Wan Teck	Senior Consultant, Division of Medical Oncology	National Cancer Centre Singapore
Dr Darren Seah Ee-Jin	Senior Consultant, Family Physician	National Healthcare Group Polyclinics
Adj. Asst. Prof Jansen Koh Meng Kwang	Chief and Senior Consultant, Department of Respiratory & Critical Care Medicine	Changi General Hospital

Name	College/Chapter/Representing body	Organisation
Dr Lynette Teo	Senior Consultant, Department of Diagnostic Imaging	National University Hospital
A/Prof Wee Hwee Lin	Associate Professor and Director for Centre for Health Interventions and Policy Evaluation Research	NUS Saw Swee Hock School of Public Health
Diabetes, Hypertension, Hyperlipidaemia, and Obesity Screening Working Group		
Dr Chew Ling	Group Director, Youth Preventive Service	Health Promotion Board
Professor Carolyn Lam	Senior Consultant and Director for Women's Heart Health, Department of Cardiology	National Heart Centre Singapore
A/Prof Lim Su Chi	Clinical Director, Clinical Research Unit and Senior Consultant, Department of Medicine	Khoo Teck Puat Hospital
Dr Sue-Anne Toh Ee Shiow	Senior Consultant, Endocrinologist	Novi Health
Osteoporosis Screening Working Group		
Dr Barbara Helen Rosario	Senior Consultant, Department of Geriatric Medicine	Changi General Hospital
Dr Chew Ling	Group Director, Youth Preventive Service	Health Promotion Board
Dr Chionh Siok Bee	Senior Consultant, Division of Endocrinology	National University Hospital
Dr Goh Jit Khong, Jake	Senior Public Health Physician and Military Medical Officer	Ministry of Defence Singapore
Dr Goh Seo Kiat	Senior Consultant, Department of Orthopaedic Surgery	Singapore General Hospital
Dr Wong Wei Mon	Assistant Medical Director, Senior Consultant	St Luke’s Hospital
Genetic Sub-committee		
Dr Chin Hui-Lin	Consultant, Division of Genetics and Metabolism, Department of Paediatrics	National University Hospital
Dr Kaavaya Narasimhalu	Consultant, Department of Neurology	National Neuroscience Institute
Prof Lee Soo Chin	Head & Senior Consultant, Department of Haematology-Oncology	National University Cancer Institute
A/Prof Ngeow Yuen Yie Joanne	Senior Consultant, Division of Medical Oncology	National Cancer Centre Singapore
Dr Tan Min Han	Founder, Chief Executive Officer and Medical Director	Lucence Diagnostics Pte Ltd
Prof Teo Yik Ying	Dean	NUS Saw Swee Hock School of Public Health

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