

# 立法會 *Legislative Council*

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## **Panel on Health Services**

### **Information note prepared by the Legislative Council Secretariat for the meeting on 12 June 2020**

#### **Prevention of osteoporosis**

According to the World Health Organization, osteoporosis is a systemic skeletal disease characterized by low bone density and microarchitectural deterioration of bone tissue with a consequent increase in bone fragility. Early osteoporosis is not usually diagnosed and remains asymptomatic. It does not become clinically evident until fractures occur. Common sites of fracture include thigh bone near the hip joint, spine (vertebrae) and forearm near the wrist. Vertebral fracture can result in a hunched-back and a decrease in body height, and sometimes back pain. Hip fracture is the most serious consequence of osteoporosis and can result in permanent disability and even death. Osteoporosis is three times more common in women than in men, partly because women have a lower peak bone mass and partly because of the hormonal changes that occur at the menopause.

2. According to the Department of Health ("DH"), higher risk groups for osteoporosis include elders, female, Asian or Caucasian, persons who are underweight or of small frame, those having a family history, unhealthy lifestyle (such as smoking, inadequate calcium intake, inadequate vitamin D intake, excessive caffeine intake, consuming too much salty food, doing little or no weight-bearing exercise and excessive alcohol consumption), diseases (such as estrogen deficiency, testosterone deficiency and endocrine diseases) as well as those on certain medications such as long-term use of high dose steroid. Statistics of the Census and Statistics Department show that the number of persons reported to have suffered from osteoporosis in Hong Kong was 57 800 as at early 2017, of which 78.5% were females, who had a higher incidence rate (1.2%) than their male counterparts (0.4%). Past statistics on the number of persons reported to have osteoporosis by sex by year in Hong Kong for the period of 2008 to 2016 is in **Appendix I**.

3. Generally speaking, osteoporosis can be prevented by adopting lifestyle. Fall prevention is important in preventing fractures and other complications, especially for those having osteoporosis. At present, the Administration does not provide no bone mineral density screening service in Hong Kong as there is insufficient scientific evidence to support a territory-wide osteoporosis screening programme. Health education on osteoporosis is provided by DH through various means. Separately, the District Health Centres ("DHCs"), as a brand new service component of the public healthcare system, will attend to promote primary prevention of osteoporosis and osteoporotic fracture through evidence-based measures which include education on sufficient calcium and vitamin D levels, regular weight-bearing exercise, fall prevention, and avoidance of tobacco and excessive alcohol. For high risk elderly, muscle strength and balance training, advice on mobility aids and gadgets as well as advice on home hazards and safety intervention or modification will be provided as appropriate. For patients referred by the Hospital Authority or network medical professionals to join the fracture hip rehabilitation programme, individualized treatment sessions by a range of allied health professionals (including physiotherapists and occupational therapists) and suggestion on home modification to prevent repeated falls would also be offered.

4. Two written questions concerning the prevention of osteoporosis were raised at the Council meetings of 24 January 2018 and 20 November 2019 respectively. The questions and the Administration's replies are in **Appendices II and III**.

按性別劃分的報稱患有骨質疏鬆症的人士數目  
Persons who reported to have osteoporosis by sex

		2008年 2月至5月 Feb - May 2008			2009年11月 至2010年2月 Nov 2009 - Feb 2010			2011年10月 至2012年1月 Oct 2011 - Jan 2012		
性別	Sex	人數	百分比	比率 <sup>[1]</sup>	人數	百分比	比率 <sup>[1]</sup>	人數	百分比	比率 <sup>[1]</sup>
		No. of persons (‘000)			%			Rate <sup>[1]</sup>		
女	F	37.2	81.9	1.1	52.0	83.3	1.5	51.5	77.1	1.5
男	M	8.3	18.1	0.3	10.5	16.7	0.3	15.3	22.9	0.5
總計	Total	45.5	100.0	0.7	62.4	100.0	0.9	66.8	100.0	1.0

		2014年 3月至8月 Mar - Aug 2014			2016年10月 至2017年1月 Oct 2016 - Jan 2017		
性別	Sex	人數	百分比	比率 <sup>[1]</sup>	人數	百分比	比率 <sup>[1]</sup>
		No. of persons (‘000)			%		
女	F	45.1	83.6	1.3	45.3	78.5	1.2
男	M	8.8	16.4	0.3	12.4	21.5	0.4
總計	Total	53.9	100.0	0.8	57.8	100.0	0.8

註釋： [1] 在個別性別組別中佔所有人士的百分比。例如，根據2016年10月至2017年1月期間進行的有關統計調查結果，1.2% 的女性患有經西醫診斷的骨質疏鬆症。

Note: [1] As a percentage of all persons in the respective sex groups. For example, among all females, 1.2% had osteoporosis as diagnosed by practitioners of Western medicine based on the findings of the relevant survey conducted during October 2016 to January 2017.

## Appendix II

## Press Releases

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LCQ22: Prevention and treatment of osteoporosis

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Following is a question by the Hon Alice Mak and a written reply by the Acting Secretary for Food and Health, Dr Chui Tak-yi, in the Legislative Council today (January 24):

Question:

Recently, some community groups have relayed to me that the elderly, especially women, have a higher risk of developing osteoporosis. As osteoporosis has no obvious symptoms, quite a number of women were not diagnosed with osteoporosis until they received treatment for fractures caused by collisions or falls. Regarding the prevention and treatment of osteoporosis, will the Government inform this Council:

(1) whether it knows the current number of osteoporosis patients in Hong Kong, together with a breakdown by the patients' gender and bone mineral density (BMD) test scores;

(2) whether it knows the number of new confirmed cases of osteoporosis in various public hospitals in each of the past 10 years, and the respective numbers of osteoporotic persons who, after sustaining fractures, (i) were admitted to hospitals for treatment, and (ii) died from complications (with a breakdown of such numbers by gender);

(3) whether it knows the respective numbers of BMD tests performed on women in the various (i) public hospitals and (ii) Woman Health Centres (WHCs) under the Department of Health (DH) in each of the past five years, as well as the respective average waiting times for receiving such tests;

(4) of the current role of WHCs under DH in promoting the prevention of osteoporosis; the number of health talks on osteoporosis held in WHCs in each of the past five years and their contents; and

(5) whether it will consider bringing the BMD test into the scope of the routine health assessment services provided by WHCs and the Maternal and Child Health Centres under DH; if so, of the details; if not, the reasons for that?

Reply:

President,

(1) and (2) The Hospital Authority (HA) and the Department of Health (DH) do not maintain statistics on the number of osteoporosis patients.

(3), (4) and (5) The bone mineral density (BMD) tests are performed on patients according to needs mainly for the purposes of diagnosis or follow-up treatment. Most of the patients receiving BMD tests are non-urgent cases/non-inpatients. The HA does not maintain statistics on the number of BMD tests performed and the average waiting time for such tests.

The Family Health Service of the DH provides Woman Health

Service for women aged at or below 64 at its three Woman Health Centres and 10 Maternal and Child Health Centres, including health education, assessment and counselling. Nevertheless, the Woman Health Service does not provide BMD tests in view of the absence of adequate scientific evidence to support osteoporosis screening programme for the whole population or all women. In addition, osteoporosis is a chronic metabolic disease of the bone, which is not limited to women and can also occur in men. Individual members of the public belonging to higher risk groups may consult their family doctors to assess the suitability of taking a BMD test to determine whether they have developed osteoporosis.

The health education provided by the Woman Health Service of the DH covers bone health and osteoporosis prevention, and advocates the importance of adopting a healthy diet and lifestyle to prevent the disease. Health education messages are disseminated through such channels as health talks, individual counselling, leaflets and websites. The DH also regularly reviews the health education resources for promoting bone health to meet the needs of the community. As the information on the prevention of osteoporosis with a healthy lifestyle is included in health talks on various topics, it is not possible to separately identify the number of relevant talks conducted.

Ends/Wednesday, January 24, 2018  
Issued at HKT 12:48

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## Appendix III

## Press Releases

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LCQ10: Osteoporosis  
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Following is a question by Dr the Hon Chiang Lai-wan and a written reply by the Secretary for Food and Health, Professor Sophia Chan, in the Legislative Council today (November 20):

Question:

It has been reported that as indicated by the findings of a medical research, one in three women and one in five men who are over 50 years old will suffer from an osteoporotic fracture at some point in their lives. In addition, there are about 10 000 new cases of hip fracture each year in Hong Kong and, among such cases, one-fifth of the patients pass away within one year, about half of them sustain permanent impairment of mobility, and about half of them need to be admitted to residential care homes. In this connection, will the Government inform this Council:

(1) of the number of osteoporotic fracture patients who were treated in public hospitals in each of the past three years, and the expenditure so incurred, with a tabulated breakdown by the body region of the fracture;

(2) as some medical practitioners have pointed out that quite a number of members of the public have little knowledge about osteoporosis, of the Government's measures to step up the relevant publicity work, so as to raise public awareness about prevention of osteoporosis; and

(3) whether it will consider implementing, under a public-private partnership approach, a community-wide bone mineral density screening for early identification and treatment of osteoporosis patients; if so, of the details; if not, the reasons for that?

Reply:

President,

Osteoporosis is a chronic metabolic disease of bone which leads to a reduction in bone density. It causes bones to become more fragile and prone to breaking. In consultation with the the Department of Health (DH) and the Hospital Authority (HA), our reply to the various parts of the question raised by Dr the Hon Chiang Lai-wan is as follows:

(1) The HA does not maintain statistics on patients with osteoporosis and those with fractures, as well as the related expenditure on treatment.

(2) Prevention of osteoporosis should begin by building strong and healthy bones at an early age. To avoid or reduce bone density loss and to minimise fracture risk, all people regardless of age should adopt a healthy lifestyle. This can be achieved by doing regular physical and weight-bearing exercises, maintaining optimal body weight, eating a balanced diet for adequate calcium and vitamin D intake, having appropriate sunlight exposure for vitamin D synthesis, and refraining from smoking and excessive drinking. Elderly persons should take extra fall prevention precautions to further reduce the risks of fracture and other

complications.

The DH's Elderly Health Service provides health education on the prevention of osteoporosis and falls that may lead to fractures. Its Woman Health Service also provides health education on bone health. Health education messages are disseminated through such channels as health talks, individual counselling, leaflets and websites. The DH also reviews regularly health education resources to meet the needs of the community.

(3) Since there is no sufficient scientific evidence to support a territory-wide osteoporosis screening programme (including one for the elderly), the DH does not provide bone mineral density screening service. However, eligible elderly persons aged 65 or above are issued with elderly health care vouchers of \$2,000 each year for seeking private primary healthcare services that suit their needs, which may include the management of osteoporosis and other chronic diseases. People who are at risk of developing osteoporosis due to, for example, underweight, previous history of bone fracture, premature menopause, smoking habit or heavy drinking, or a family history of osteoporosis or fracture, should take active control of the risk factors and seek medical advice on appropriate medical options, such as bone mineral density assessment or treatment.

In respect of public-private collaboration, the HA will, while taking account of relevant expert advice, continue to communicate with the public and patient groups, and work closely with stakeholders to look into the feasibility of introducing new initiatives. In exploring the launch of new Public-Private Partnership (PPP) programmes, the HA will carefully consider a number of factors, including the service demand, case suitability, potential complexity, capacity and readiness in the private market, as well as the long-term financial sustainability of the PPP Fund.

Ends/Wednesday, November 20, 2019  
Issued at HKT 12:45

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