COMMERCIAL IN CONFIDENCE

FINAL REPORT

A Needs Case for Allowing Podiatric Surgeons Access to the MBS

Prepared for
Australasian College of Podiatric Surgeons

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CANBERRA
Centre for International Economics
Ground Floor, 11 Lancaster Place
Majura Park

Canberra ACT 2609
GPO Box 2203
Canberra ACT Australia 2601

Telephone +61 2 6245 7800
Facsimile +61 2 6245 7888
Email cie@TheCIE.com.au

Website www.TheCIE.com.au

SYDNEY
Centre for International Economics
Suite 1, Level 16, 1 York Street
Sydney NSW 2000

Telephone +61 2 9250 0800
Email ciesyd@TheCIE.com.au

Website www.TheCIE.com.au

BRISBANE
Centre for International Economics
Suite 1, 888 Brunswick Street
New Farm QLD 4005

Phone +61 419 040 735
Email cie@TheCIE.com.au

Website www.TheCIE.com.au

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Glossary

arthrodesis	surgical immobilization of a joint by fusion of the bones
arthroplasty	surgical reconstruction or replacement of a joint
arthroscopic	key hole surgery
arthrotomy	key hole involving opening a joint
excision	removal
exostosis	abnormal formation of a bony growth on a bone
fascia	band of connective tissue that attaches, stabilises and encloses and separates muscles from other internal organs
fasciectomy	removal of thickened connective tissues
fasciotomy	cut fascia to relieve tension or pressure to treat loss of circulation to tissue or muscle (limb saving procedure)
ganglion	cyst (tumour) or swelling on top of a joint or covering of a tendon
hallux rigidus	disorder of the joint located at the base of the big toe
hallux valgus	bunion
metatarsal	any bones of the foot
Morton's syndrome	shortened first foot bone that results in excessive force on the head of the second bone and a hypermobile first metatarsal segment causing a swollen or thickened nerve in the ball of the foot
neurectomy	surgical removal of all or part of a nerve
neurolysis	separation of adhesions from a nerve fibre
ostectomy	excision of all or part of the bone
osteotomy	dividing of a bone
plantar fasciitis	heel pain involving the thick fibrous band of connective tissue that runs from the bottom of heel to the toes
synovectomy	destruction of the membrane that lines the joint
tarsal	bones in the foot
tenoplasty	reparative surgery of the tendon
tenotomy	cutting of a tendon

Summary

This report sets out the Needs Case for allowing podiatric surgeons in Australia to access relevant Medicare Benefits Schedule (MBS) item codes relating to the activity they currently undertake.

It is based on three principal lines of argument, namely that:

- **there is strong evidence of growing patient demand for the management and treatment of foot and ankle pain, injury and disease in Australia**
- **there are bottlenecks in the supply of podiatric surgical services, whether they are MBS funded or not, and those bottlenecks are not clinically warranted, and**
- **the result for patients is that they either forego the surgery they need, join long public hospital waiting lists, or encounter high out-of-pocket costs (OOPC) that act as a barrier to provider choice (with non-podiatric surgeons able to access MBS item codes for the same services).**

This Needs Case highlights that the differential treatment of podiatric surgeons acts as a barrier to access to services for consumers with respect to MBS funding. It can be used to support a more substantiated application to the Medical Services Advisory Committee (MSAC) to support consumer access to the clinically necessary and appropriate care that podiatric surgeons provide.

Demand pressure and foot and ankle pain is evident among Australians

Thirty per cent of Australians experience foot pain, and reduced quality of life, and various data show that demand for treating foot and ankle conditions is rising:

- MBS funded podiatric activity for patients with a chronic condition has risen from 395 000 funded services in 2007 to 3.1 million in 2017
- Emergency Department (ED) presentations related to dislocation, sprain and strain of joints and ligaments of the ankle and foot are up, as are hospitalisations due to foot and ankle injuries and diseases in older Australians and GP encounters related to plantar fasciitis, and
- MBS activity for item codes related to foot and ankle surgery are up 30 per cent over the last 10 years, alongside growing public hospital waiting lists.

Given that risk factors for foot and ankle conditions are also growing, future increases in patient demand should be expected:

- the proportion of Australians aged 60- 79 has risen 37 per cent in the past 10 years, and those aged 80+ is up 29 per cent
- almost two thirds of the current population are classified as overweight or obese, and

- diabetes prevalence is now 2.5 times higher than 1995, bringing with it increased risk of foot-related complications.

Already, the average wait time for elective foot and ankle surgery in public hospitals is 85 days, and the Royal Australasian College of Surgeons identified has stated that to maintain the 2010 ratios of orthopaedic surgeons to the population aged over 65, 687 additional surgeons will be required.

Analysis of 105 MBS item codes relevant to foot and ankle surgery supports strong growth in patient demand, although for the subset of procedures akin to existing podiatric surgery, MBS activity (currently related to orthopaedic surgeons) has been more stagnant. This indicates that growth in demand is effectively capped in areas where patients face high OOPC with podiatric surgeons or long public hospital or private waiting lists with orthopaedic surgeons.

Already some demand is unmet, and OOPC are a barrier to care

Despite growing demand, the supply of podiatric surgical services is effectively capped. Orthopaedic surgeons face workforce shortages, and long public hospital waiting lists act as a deterrent to patients' seeking care. Podiatric surgeons cannot access MBS item codes for equivalent services, and the resultant high cost to consumers also deters consumers from receiving the care that they need.

As a result, restrictions on access to MBS funding for clinically appropriate podiatric surgery results in patients facing high OOPC to privately access the care they need.

The level of OOPC for podiatric surgery depend on:

- whether or not patients have private health insurance (PHI)
- whether PHI covers podiatric surgery (noting that Bupa do not cover podiatric surgery for any policy holder), and
- the conditions placed on the benefits received by consumers by their private health insurer:
  - consumers with top tier HCF or Medibank Private PHI can only access *minimum* benefits for podiatric surgery services, and
  - only top tier HBF policy holders can access more than *minimum* benefits.

Patients without PHI or those with policies that do not cover podiatric surgery must pay all fees in full (for instance, surgeon fees, anaesthetist fees, and hospital fees). In some cases, private health insurers will not pay benefits for podiatric surgery specifically because it is not listed on the MBS.

This is a significant issue for the Australian Government who is clearly not getting full value on its investment in the PHI rebate.

Additional costs to patients routinely run into the thousands

Of the 25 most accessed podiatric surgeries, the average additional cost paid by patients of podiatric surgeons due to lack of MBS recognition is $593 for a single MBS item, ranging from $325 to $1 264.

Typically, surgeries straddle multiple MBS items, with the actual cost to patients of receiving care from their podiatric surgeon routinely running into the thousands.

For instance, a case of surgery for hammer toes and pain in the ball of the foot involving phalangeal osteotomy (MBS:48403) of toes 2 to 5 and a neck osteotomy (MBS: 48403) of metatarsals 2 to 3 cost the patient **$3 002 more** that it would have cost if the surgeon could have accessed clinically appropriate MBS item numbers.

Treatment for a hallux valgus (bunion) that required primary metatarsal ostectomy of the 1st metatarsal (MBS item 49833), ligament/capsular repair (digital) (MBS item 50106), and insertion of internal fixation (MBS item 47921) cost the patient **$7 548 more** than it would have cost to have received the procedure from an orthopaedic surgeon.

Another patient with a severe toe deformity with dislocation of the lesser metatarsophalangeal joints underwent osteotomy of the phalanx or metatarsal with internal fixation (MBS item 48403), 4 x metatarsophalangeal arthroplasty (MBS item 49848), 4 x digital arthroplasty (MBS item 49848) and insertion of internal fixation (MBS item 47921), at an added cost of **$3 258** simply because the surgeon could not access clinically appropriate item numbers.

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Price matters to consumers, and under existing funding arrangements, MBS relief is only available when surgery is undertaken by a medical practitioner — mostly by orthopaedic surgeons who have limited workforce capacity.

The issue of OOPC resulting in consumers foregoing care is seen in evidence that the number of foot and ankle surgery cases undertaken by podiatric surgeons is flat or declining, as is the level of surgical activity among medical practitioners for comparable procedures.

Moreover, there is good reason to believe that preventing podiatric surgeons from accessing MBS items for clinically appropriate, safe and effective, surgeries is anti-competitive. Internationally, podiatric surgeons are active in public and private hospital settings and can provide government funded procedures.

Paying for the delay

Without change, it is patients that bear the burden of avoiding or delaying podiatric surgery, living with foot and ankle pain, and potentially imposing higher long-term costs on the health system when care becomes unavoidable.

If a patient cannot afford treatment from a podiatric surgeon but cannot avoid it either, they need to return to their GP for (an avoidable) referral to an orthopaedic surgeon and join the waiting list for public hospital care.

Alternatively, patients may seek private orthopaedic care, where there are also bottlenecks in supply.

In all cases, the differential treatment of podiatric surgeons with respect to MBS funding has a limiting impact on consumers' choice of provider.

Limits to competition provide little scope for redress

The exclusion of Podiatric surgeons from accessing the MBS for procedures which they already safely and effectively conduct in the private setting is ultimately anti-competitive, and unnecessarily limits competition and market contestability.

As acknowledged in the 2015 Competition Policy Review (Harper Review), "…user choice should be placed at the heart of service delivery"[1], with changes being made across medical specialities to improve market contestability. This includes:

- allowing patients to choose their pathology or diagnostic imaging provider for Medicare services
- allowing Nurse Practitioners to become a PBS prescriber, as well as deliver rebated Medicare services such as history taking, clinical examination, implementing a management plan, providing appropriate preventative health care, arranging diagnostic and pathology requests and providing referral to specialist services, and
- enabling optometrists accredited to prescribe medication to be endorsed as a PBS prescriber, and relaxing restrictions on Optometrist prescribing of anti-glaucoma, with the PBAC recently agreeing with the Optometry Board's estimates that expanding prescriber rights would have minimal financial impact on the Commonwealth and that any additional costs would be offset by improved health outcomes associated with earlier commencement of treatment.

Allowing podiatric surgeons to access a limited number of MBS items which align to clinically necessary services that they are already providing private patients would be aligned with international experience. Throughout the United Kingdom and the United States, podiatric surgeons routinely work in multi-disciplinary teams in public hospitals, and patients can access government funding for podiatric surgery in the private sector.

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1 Harper, I., Anderson, P., McCluskey, S. & O'Bryan , M. 2015, 'Competition Policy Review, Final Report', The Australian Government Competition Policy Review, p. 239, available at: http://competitionpolicyreview.gov.au/files/2015/03/Competition-policy-review-report_online.pdf

1 Understanding demand for foot and ankle surgery

Australian evidence shows foot pain, and clinical demand for foot and ankle surgery, is on the rise. Thirty per cent of Australians experience foot pain with associated reduced quality of life, and activity on the 105 MBS item codes related to foot and ankle surgery has risen 30 per cent over the last 10 years.

Emergency Department presentations related to dislocation, sprain and strain of joints and ligaments of the ankle and foot are up (4 per cent in 2 years), hospitalisations due to foot and ankle injuries in older Australians is rising 6 per cent annually, and GP encounters related to plantar fasciitis is rising. MBS funded podiatric episodes of care for patients with a chronic condition has also risen from 395 000 funded services in 2007 to 3.1 million in 2017.

Future increases in patient demand for foot and ankle treatment, including surgery, should be expected. The proportion of Australians aged 60- 79 has risen 37 per cent in the past 10 years, and those aged 80+ is up 29 per cent, almost two thirds of the current population are classified as overweight or obese, and diabetes prevalence now 2.5 times higher than 1995, bringing with it increased risk of foot-related complications.

Growth in patient demand for foot and ankle surgery

Demand for managing foot and ankle pain and disease, including demand for surgical services, is on the rise.

Between 2007 and 2017, of the (approximately) 105 Medicare Benefits Schedule (MBS) items associated with foot and ankle surgery, claims have increased by 30 per cent, up from 130 000 to just over 170 000 (chart 1.1), or 3 per cent annually, outstripping population growth of 20 per cent over the same period.[2] This is in excess of forecasts conducted in a previous analysis which predicted just under 160 000 foot and ankle surgeries by 2020.[3]

The number of elective orthopaedic surgeries (of which foot and ankle surgery is part) conducted in Australian public hospitals increased 15 per cent between 2011-12 and 2016-17, or 2.8 per cent annually (chart 1.2).

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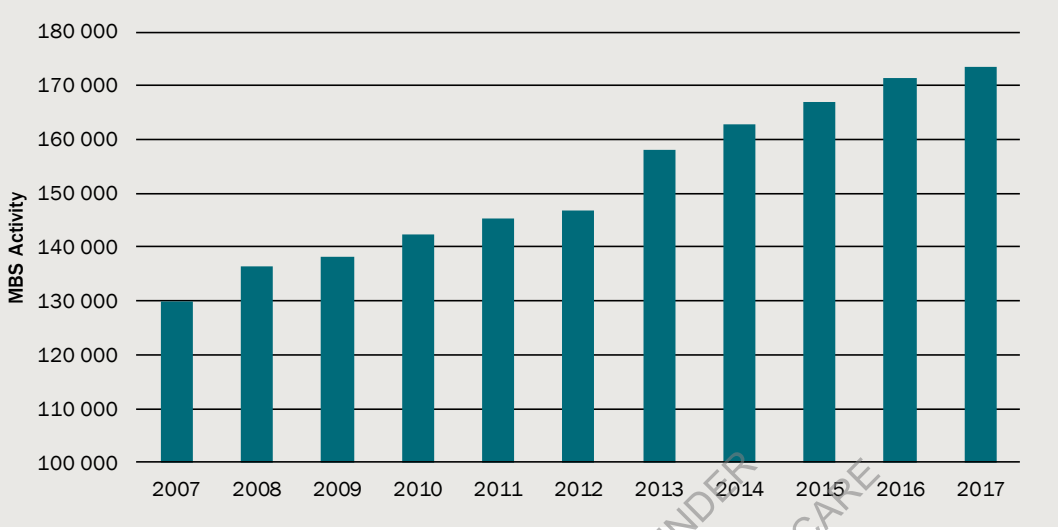
2 Based on Australian Bureau of Statistics, *3101.0 Australian Demographic Statistics*, which reported a September 2017 population of 24 702 900 million and September 2007 population estimate of 20 924 200.

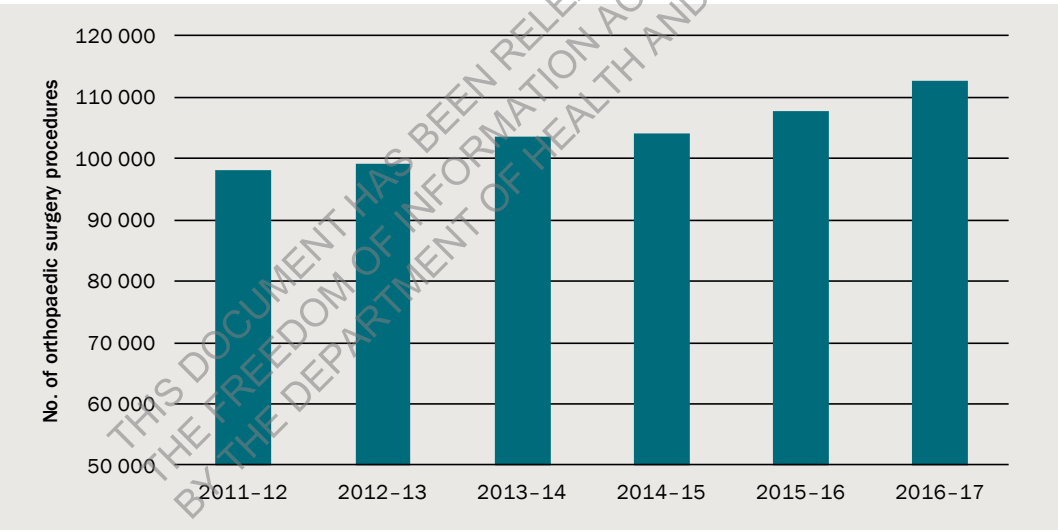
3 Access Economics. 2008, 'The economic impact of podiatric surgery', prepared for *The Australasian College of Podiatric Surgeons*, p 17. Note: this projection included 95 MBS items.

1.1 MBS utilisation associated with foot and ankle surgeries



Data source: MBS utilisation data, refer appendix A for the 105 MBS item codes included.

1.2 Elective orthopaedic surgeries in public hospitals



Data source: CIE analysis; Australian Institute of Health and Welfare, 'Waiting times for elective surgery', available at: https://www.aihw.gov.au/reports/hospitals/elective-surgery-waiting-times-ahs-2015-16/contents/table-of-contents.

Analysis of MBS foot and ankle procedures performed on those aged between 55 and 64 years shows that over the ten years to 2006, utilisation grew by 45 per cent (the highest growth for all age cohorts).[4] Growth was predominantly in procedures involving the first metatarsophalangeal joint (1st MPJ) to treat bunion or arthritis).

Age effects are also seen in hospitalisations data relating to falls, with the number of hospitalisations for foot and ankle injuries due to falls in people aged 65+ rising

4 Menz, H.B., Gilheany, M.F. & Landorf, K.B. 2008, 'Foot and ankle surgery in Australia: a descriptive analysis of the Medicare Benefits Schedule database, 1997-2006', *Journal of foot and ankle research*, vol. 1, no. 1.

6 per cent annually since 2002-03 (table 1.3) —twice the average annual increase in population growth for this age group.[5]

1.3 Hospitalisations for foot and ankle injuries due to falls in those 65+

Reason for hospitalisation	2002-03	2012-13	Annual growth
	No.	No.	%
Foot or ankle injury from a fall	724	1 340	6

Source: Australian Institute of Health and Welfare. 2017, 'Trends in hospitalisations due to falls by older people, Australia 2002-03 to 2012-13', Injury research and statistics Series No. 106, p 59, Table C6.

Australians have also experienced an increase in Emergency Department (ED) presentations related to dislocation, sprain and strain of joints and ligaments of the ankle or foot. In the short time since evidence has been collected, ED presentations have increased by 4 per cent (table 1.4).

1.4 ED presentations for foot and ankle injuries

	2014-15	2016-17	Total change
Reason for ED presentation	No.	No.	Per cent
Dislocation, sprain and strain of joints and ligaments at the ankle and foot level	90 707	94 139	4

Note: ED: Emergency department

Source: Australian Institute of Health and Welfare. 2017, 'Emergency department care 2016-17: Australian Hospital statistics', Health Services Series No. 80, p37, Table 4.7; Australian Institute of Health and Welfare. 2015, 'Emergency department care 2014-15: Australian Hospital statistics', Health Services Series No. 65, p32, Table 4.7

In addition:

- there has been an increase in the number of GP encounters related to plantar fasciitis, which rose by 3-per-100 000 consultations between 2000 and 2014,[6] and
- prevalence of foot pain has doubled between 2004-2006 and 2008-2010, increasing from 14.9 cent to 29.9, per cent respectively.[7]

MBS-funded podiatric services available to people with chronic medical conditions and complex care needs managed by a GP have also grown from 395 000 in 2007 to 3.1 million in 2017 (chart 1.5), indicating a growing and substantial need for management and treatment of foot conditions.

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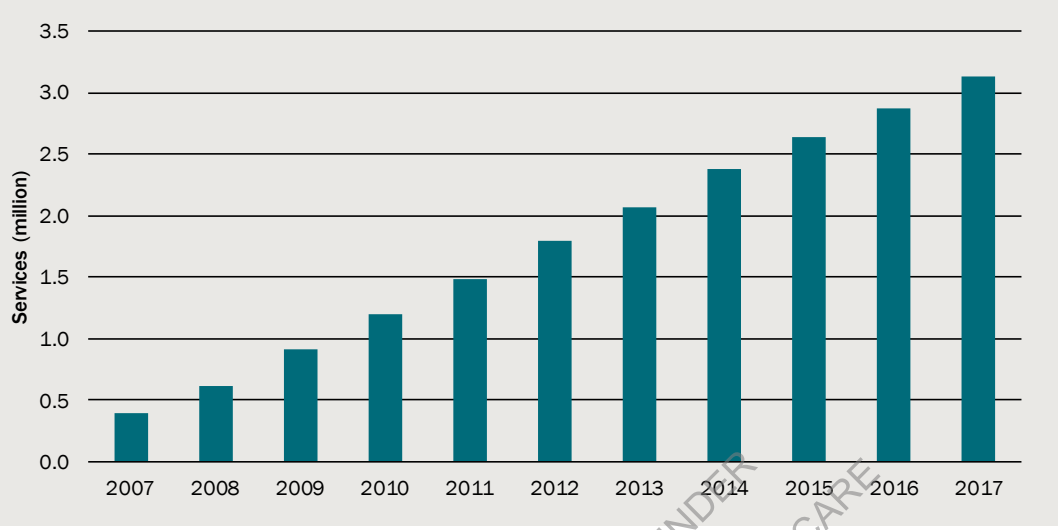
5 Australian Bureau of Statistics, Time Series Workbook, *3101.0 Australian Demographic Statistics*, Table 59. Estimated resident population by single year of age, Australia, available at: http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3101.0Sep%202017?OpenDocument

6 Australian Family Physician. 2015, 'Plantar fasciitis in Australia in General Practice', *Focus: foot problems*, Vol. 44, no. 3, available at: https://www.racgp.org.au/afp/2015/march/plantar-fasciitis-in-australian-general-practice/

7 Gill, T.K., Menz, H.B., Landorf, K.B., Arnold, J.B., Taylor, A.W. & Hill, C.L. 2016, 'Predictors of foot pain in the community: the North West Adelaide health study', *Journal of foot and ankle research*, vol. 9, no. 1, pp. 23; Overall prevalence in Stage II was 17.4 per cent, however, prevalence in the cohort who continued from Stage II to Stage III was lower at 14.9 per cent.

1.5 Podiatry activity for patients with chronic conditions/complex care needs



Note: Refers to those accessing services via a Chronic Disease Management Program. Based on utilisation of item 10962; one patient can access a maximum of 5 services per year.

Data source: Medicare Item Reports, available at: http://medicarestatistics.humanservices.gov.au/statistics/mbs_item.jsp

More can be expected

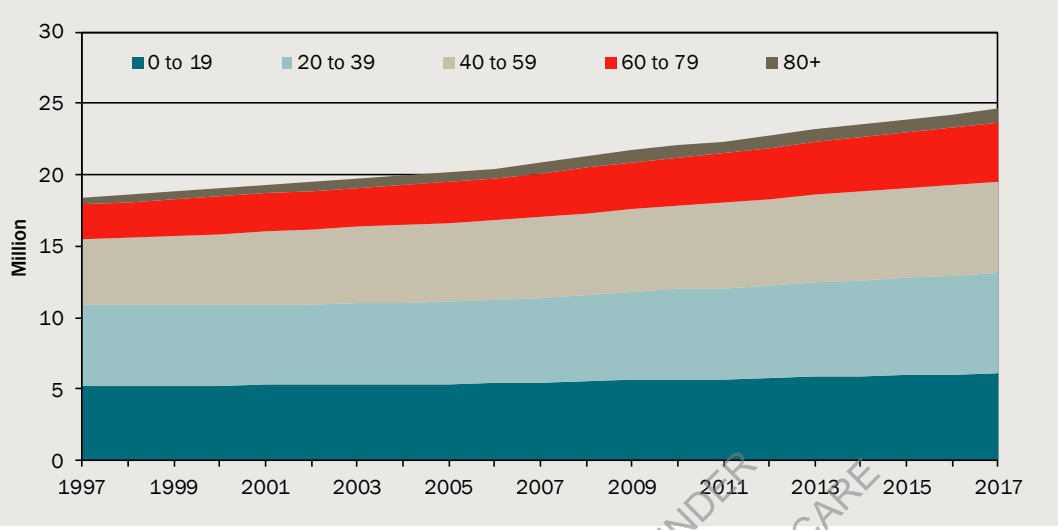
Regrettably, the key drivers of foot and ankle conditions are increasingly evident in Australia's population, including population ageing and the prevalence of chronic diseases that affect the health state of the foot and ankle.

Australia's ageing population is a risk factor for foot and ankle conditions

Australia has a growing and ageing population (chart 1.6). The proportion of the population aged over 60 increased from 18.2 per cent of total population in 2007 to 20.8 per cent in 2017, whilst the proportion of the population aged under 20 decreased from 26.3 per cent in 2007 to 24.9 per cent in 2017. The rate of population growth in those aged 60 to 79 grew 37 per cent between 2007 and 2017, and by 29 per cent for those in those aged 80 years or over (table 1.6).[8]

8 ABS. 2017,'3101.0 Australian Demographic Statistics: Table 59. Estimated Resident Population by Single Year of Age, Australia'.

1.6 Australia's increasing and ageing population



Data source: Australian Bureau of Statistics. 2017,'3101.0 Australian Demographic Statistics: Table 59. Estimated Resident Population by Single Year of Age, Australia'.

Foot and ankle conditions for which increased age is a demonstrated risk factor include:

- bunion, or *hallux abducto valgus*, a foot deformity that causes functional disability and pain in the big toe. Prevalence increases with age, with a prevalence rate of 23 per cent in those aged 20 to 65, increasing to 36 per cent in those aged over 65. Moreover, prevalence is higher in females than males (30 per cent and 13 per cent respectively).[9] Importantly, older people aged 60 to 90 with *hallux abducto* are nearly 2.4 times more likely to have a fall than those without[10]
- hammer and claw toes. Claw toe is typically caused by nerve damage whilst hammer toe is caused by muscle imbalance.[11] Both develop due to biomechanical, bone and soft tissue pathology. The conditions are most often observed in older people (those in their seventh or eighth decade of life) and females, who are between 4 and 5 times more likely to experience hammer or claw toe than males.[12] Hammer and claw toes increase the risk of ulceration in people with diabetes.[13] In one study, patients with

9 Nix S, Smith M, Vicenzino B. 2010, 'Prevalence of hallux valgus in the general population: a systematic review and meta-analysis', Journal of Foot and Ankle Research. Vol. 3 no. 21.

10 Mickle, K.J., Munro, B.J., Lord, S.R., Menz, H.B. & Steele, J.R. 2009, 'ISB Clinical Biomechanics Award 2009: toe weakness and deformity increase the risk of falls in older people', *Clinical biomechanics* (Bristol, Avon), vol. 24, no. 10, pp. 787.

11 American Orthopaedic Foot and Ankle Society. 2018, 'Ailments of the Smaller Toes' available at: http://www.aofas.org/footcaremd/conditions/ailments-of-the-smaller-toes/Pages/Hammertoe.aspx

12 National Institute for Health and Care Excellence, 'Toe deformities', available at: https://www.evidence.nhs.uk/Search?ps=30&q=hammer+toe

13 Mishra, Chhatbar, K.C., Kashikar, A. & Mehndiratta, A. 2017, 'Diabetic foot', *BMJ*, vol. 359.

fixed hammer/claw toes were almost 4 times more likely to have ulceration than those without.[14]

- arthritis involving the joint at the base of the big toe, or *hallux rigidus*, the most common site for arthritis in the foot. Risk factors include a long or elevated first foot bone, history of trauma to the big toe and family history. The condition is degenerative and has a prevalence of 1 in 40 people in those aged over 50 years.[15] *Hallux rigidus* is associated with significant pain and functional limitations,[16] and
- heel pain conditions such as soft tissue disorder (e.g. fat pad atrophy, most common in the elderly) and plantar fasciitis which is most common in females, and in those aged 45 to 64. Plantar fasciitis is the most common cause of chronic heel pain. As well as age, risk factors include obesity, flat feet, high-arched feet, shortened Achilles tendon, inward roll of the foot, poor posture, prolonged weight bearing, inadequate stretching and wearing unsupportive footwear.[17]

Increasing rates of obesity and chronic disease

Longitudinal evidence from a large scale three stage study on the prevalence and correlates of foot pain found that a BMI classification of obese is a statistically significant predictor of foot pain.[18]

Almost two thirds of the Australian population are considered overweight or obese. The proportion of the population classified as obese increased by almost 10 per cent between 1995 and 2015, from 19 per cent to 28 per cent in 2015, representing an average annual increase of 1.8 per cent. This occurred alongside an increase in the prevalence of diabetes.

14 Ledoux, W.R., Shofer, J.B., Smith, D.G., Sullivan, K., Hayes, S.G., Assal, M. & Reiber, G.E. 2005, 'Relationship between foot type, foot deformity, and ulcer occurrence in the high-risk diabetic foot', *Journal of rehabilitation research and development*, vol. 42, no. 5, pp. 665.

15 American Orthopaedic Foot and Ankle Society. 2018, 'Ailments of the Smaller Toes' available at: http://www.aofas.org/footcaremd/conditions/ailments-of-the-big-toe/Pages/hallux-rigidus.aspx; Yee, G. & Lau, J. 2008, 'Current Concepts Review: Hallux Rigidus', *Foot & Ankle International*, vol. 29, no. 6, pp. 637-646.

16 Gilheany, M.F., Landorf, K.B. & Robinson, P. 2008, 'Hallux valgus and hallux rigidus: a comparison of impact on health-related quality of life in patients presenting to foot surgeons in Australia', *Journal of foot and ankle research*, vol. 1, no. 1, pp. 14-14.

17 Schwartz, E.N. & Su, J. 2014, 'Plantar fasciitis: a concise review', *The Permanente journal*, vol. 18, no. 1, pp. e105-e107; Australian Family Physician. 2015, 'Plantar fasciitis in Australia in General Practice', *Focus: foot problems*, Vol. 44, no. 3, available at: https://www.racgp.org.au/afp/2015/march/plantar-fasciitis-in-australian-general-practice/

18 Lazzarini, P.A., Hurn, S.E., Fernando, M.E., Jen, S.D., Kuys, S.S., Kamp, M.C. & Reed, L.F. 2015, 'Prevalence of foot disease and risk factors in general inpatient populations: a systematic review and meta-analysis', *BMJ open*, vol. 5, no. 11, pp. e008544; Hill, C.L., Gill, T.K., Menz, H.B. & Taylor, A.W. 2008, 'Prevalence and correlates of foot pain in a population-based study: the North West Adelaide health study', *Journal of foot and ankle research*, vol. 1, no. 1, pp. 2-2; Gill, T.K., Menz, H.B., Landorf, K.B., Arnold, J.B., Taylor, A.W. & Hill, C.L. 2016, 'Predictors of foot pain in the community: the North West Adelaide health study', *Journal of foot and ankle research*, vol. 9, no. 1, pp. 23.

In 2015, the prevalence of diabetes was 2.5 times higher than what it was in 1995, increasing from 2.4 per cent to 6.1 per cent (table 1.7).[19]

1.7 Increasing rates of obesity and diabetes

Risk factor	Proportion of population in 1995	Proportion of population in 2015 [a]	Increase between 1995 and 2015
	Per cent	Per cent	Per cent
Obesity	19.1	27.5	44.0
Diabetes	2.4	6.1	154.2

[a] Based on 2014-15 estimates

Source: Australian Institute of Health and Welfare. 2017, 'An interactive insight into overweight and obesity in Australia'; Australian Institute of Health and Welfare. 2011, 'Diabetes prevalence in Australia: Detailed estimates from 2007-08', Cat. no. CVD 56 ; Australian Institute of Health and Welfare. 2017, 'Diabetes web pages data tables: Table 1.1', Diabetes compendium; Australian Institute of Health and Welfare. 1999, 'National Health Priority Areas Report: diabetes mellitus', p. 22.

Of the estimated 1.25 million people diagnosed with diabetes in Australia, 50 000 are living with diabetic foot disease, and a further 300 000 are at risk of developing it. In 2017, each day in Australia, an estimated 12 people underwent a diabetes related amputation and 1 000 people were inpatients in a public hospital due to diabetic foot disease.[20] This is up from an estimated 10 people undergoing a lower limb amputation each day in 2012-13.[21]

Approximately 85 per cent of all lower limb amputations in people with diabetes are preceded by a foot ulcer.[22] Minor amputations are often performed to limit the spread of infection from such ulcerations. However, a history of minor amputation is significantly associated with future infection, future major amputation and hospitalisation.[23]

Osteoarthritis is another chronic disease that puts people at risk of foot or ankle disorders such as bunion, hammer toe and claw toe. In Australia, between 2004-05 and 2014-15

19 AIHW. 2017, 'An interactive insight into overweight and obesity in Australia'; Australian Institute of Health and Welfare. 2011, 'Diabetes prevalence in Australia: Detailed estimates from 2007-08', Cat. no. CVD 56 ; Australian Institute of Health and Welfare. 2017, 'Diabetes web pages data tables: Table 1.1', Diabetes compendium; AIHW. 1999, 'National Health Priority Areas Report: diabetes mellitus', p. 22.

20 Diabetic Foot Australia. 2017, 'Australian diabetes related foot disease strategy: 2018-2022: The first step towards ending avoidable amputations within a generation', available at: https://www.diabeticfootaustralia.org/wp-content/uploads/2017/09/National-Strategy-to-end-avoidable-amputations-in-a-generation-final.pdf; British Orthopaedic Foot and Ankle Society. 2013, Commissioning guide: Painful deformed great toe in adults', p. 2.

21 Based on estimates from the Australian Institute of Health and Welfare. 2017, 'Burden of lower limb amputations due to diabetes in Australia', *Australian Burden of Disease Study 2011*, Australian Burden of disease series no. 10 BOD:11; there were 3 570 amputations in 2012-13, equating to 9.8 per day.

22 Moxey, P.W., Gogalniceanu, P., Hinchliffe, R.J., Loftus, I.M., Jones, K.J., Thompson, M.M. & Holt, P.J. 2011, 'Lower extremity amputations — a review of global variability in incidence, *Diabetic Medicine*, vol. 28, no. 10, pp. 1144-1153.

23 Beaulieu, R.J., Grimm, J.C., Lyu, H., Abularrage, C.J., & Perler, Bruce A. 2015, 'Rates and predictors of readmission after minor lower extremity amputations', *Journal of Vascular Surgery*, vol. 62, no. 1, pp. 101-105.

the aged standardised prevalence of osteoarthritis increased from 7.7 per cent to 8.1 per cent.[24] Whilst this increase is modest, it is still important, especially given that an estimated one in six people with osteoarthritis experience foot symptoms.[25]

While ageing and obesity are important, foot and ankle disorders affect all Australians. Foot conditions predominantly associated with younger age groups include:

- ingrown toe nail, which occurs when the nail plate traumatises the nail fold. Common manifestations of ingrown toe nails include pain, infection, inflammation and difficulty walking.[26] The disorder is most commonly experienced by young men aged between 15 and 40,[27] and
- benign tumours such as subungual exostosis, chondroblastoma, osteoblastoma, osteoid osteoma, enchondroma and nonossifying fibroma, most commonly observed in adolescents and young adults.[28]

Examples of conditions attributable to foot trauma and injury include:

- fractures and breaks
- skeletal heel pain, such as calcaneal stress fracture, most often seen in runners.[29]
- nerve impingement, a painful condition caused by a ligament, tendon or bone putting pressure on a nerve in the foot or ankle. As well as pain, symptoms can include tingling and numbness. The condition is common in athletes and can manifest in several forms (Morton's neuroma, tarsal tunnel syndrome, anterior tarsal tunnel syndrome, entrapment of the superficial peroneal nerve, Baxter's nerve and jogger's nerve).[30]
- benign tumour of the foot or ankle associated with previous foot trauma (for instance, epidermal inclusion cysts, ganglion cysts and plantar fibromatosis).[31]

24 Australian Institute of Health and Welfare. 2017, 'Osteoarthritis: web report', available at: https://www.aihw.gov.au/reports/arthritis-other-musculoskeletal-conditions/osteoarthritis/data.

25 Thomas, M.J., Peat, G., Rathod, T., Marshall, M., Moore, A., Menz, H.B. & Roddy, E. 2015, 'The epidemiology of symptomatic midfoot osteoarthritis in community-dwelling older adults: cross-sectional findings from the Clinical Assessment Study of the Foot', *Arthritis research & therapy*, vol. 17, no. 1, pp. 178.

26 Mousavi SR, Khoshnevice J.2012, 'A New Surgical Technique for Ingrown Toenail', ISRN Surgery, doi:10.5402/2012/438915.

27 Park, D.H. & Singh, D. 2012, 'The management of ingrowing toenails', *British Medical Journal*, vol. 344, no. 7851, pp. 37-40.

28 Kennedy, J.G., Ross, K.A., Smyth, N.A., Hogan, M.V. & Murawski, C.D. 2015, 'Primary Tumors of the Foot and Ankle', *SAGE Publications*, Vol. 9, no. 1.

29 Schwartz, E.N. & Su, J. 2014, 'Plantar fasciitis: a concise review', *The Permanente journal*, vol. 18, no. 1, pp. e105-e107.

30 Gross, C. & Nunley, J.A. 2016, 'Nerve Entrapments', In: Valderrabano V., Easley M. (eds) *Foot and Ankle Sports Orthopaedics*. Springer, Cham, pp. 383-390.

31 Kennedy, J.G., Ross, K.A., Smyth, N.A., Hogan, M.V. & Murawski, C.D. 2015, 'Primary Tumors of the Foot and Ankle', *SAGE Publications*, Vol. 9, no. 1.

2 Supply side bottlenecks for podiatric surgery

For a range of reasons, the supply of podiatric surgery is effectively capped, resulting in unmet demand for treating foot and ankle conditions.

This is due to limits to the orthopaedic surgery workforce (the main provider of foot and ankle surgeries), as well as high OOPC costs for consumers that seek non-MBS funded recourse to address pain and disease.

Australian data shows surgical procedures offered by podiatric surgeons, and equivalent activity undertaken by orthopaedic surgeons, are flat or declining.

There is good reason to believe that preventing podiatric surgeons from accessing MBS items for clinically appropriate, safe and effective, surgeries is anti-competitive. Internationally, podiatric surgeons are active in both public and private hospital settings and can provide government funded procedures.

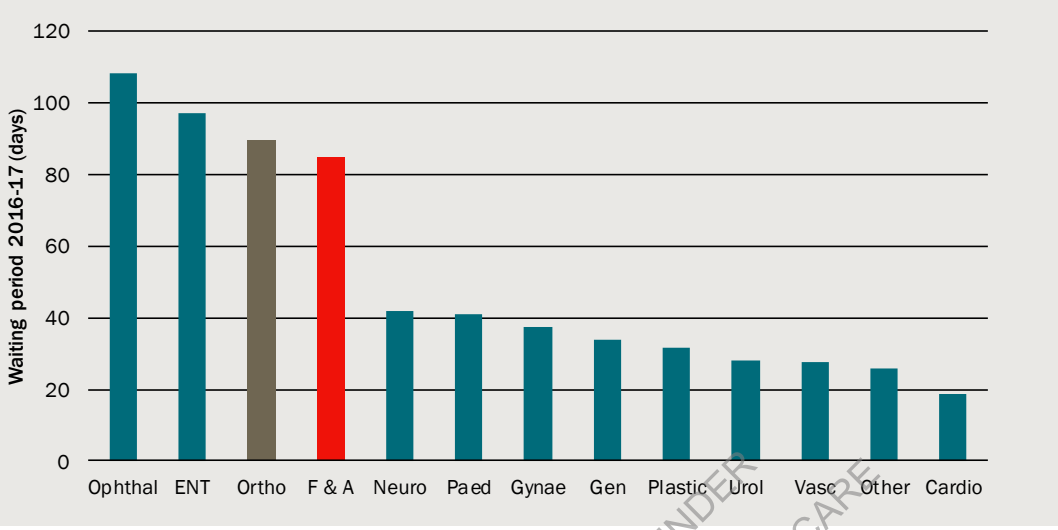
Making patient wait

Currently, only medical practitioners can access MBS item numbers related to podiatric surgery, with the majority of surgeries performed by orthopaedic surgeons. With underlying demand pressure from patients, this manifests in long public hospital waiting lists for elective surgery, which for elective foot and ankle surgery, are among Australia's worst.

In 2016-17, the average wait time for elective foot and ankle surgery in public hospitals was 85 days (chart 2.1), which is in line with the overall wait time for orthopaedic surgery of 89 days — the third longest wait period of all specialities. Some procedures are particularly poorly reflected in wait times. For example, a wait time for an excision of an exostosis of 229 days (table 2.2).

Foot and ankle disorders can cause significant pain and result in decreased mobility and complications such as infection. Hence, wait times represent a period for which patients are living with pain, discomfort, and reduced quality of life.

2.1 Waiting times for elective surgery in public hospitals (2016-17)



Note: Foot and ankle surgery (F&A) wait time is based on data on wait times weighted by number of surgeries performed for removal of bunion, excision of exostosis, excision of ganglion, correction of hammer/claw/mallet toe, change of muscle or tendon length, osteotomy and toe nail surgery; *ENT= ear nose and throat; F & A = foot and ankle.*

Data source: CIE analysis; Australian Institute of Health and Welfare, 'Waiting times for elective surgery', available at: https://www.aihw.gov.au/reports/hospitals/elective-surgery-waiting-times-ahs-2015-16/contents/table-of-contents

2.2 Wait times for foot and ankle surgeries in public hospitals 2016-17

Surgery type	Waiting period (days)
Excision of exostosis	229
Removal of Bunion (hallux valgus)	169
Excision of ganglion	93
Osteotomy	84
Change of muscle or tendon length	82
Correction of hammer/claw/mallet toe	63
Toenail surgery	40

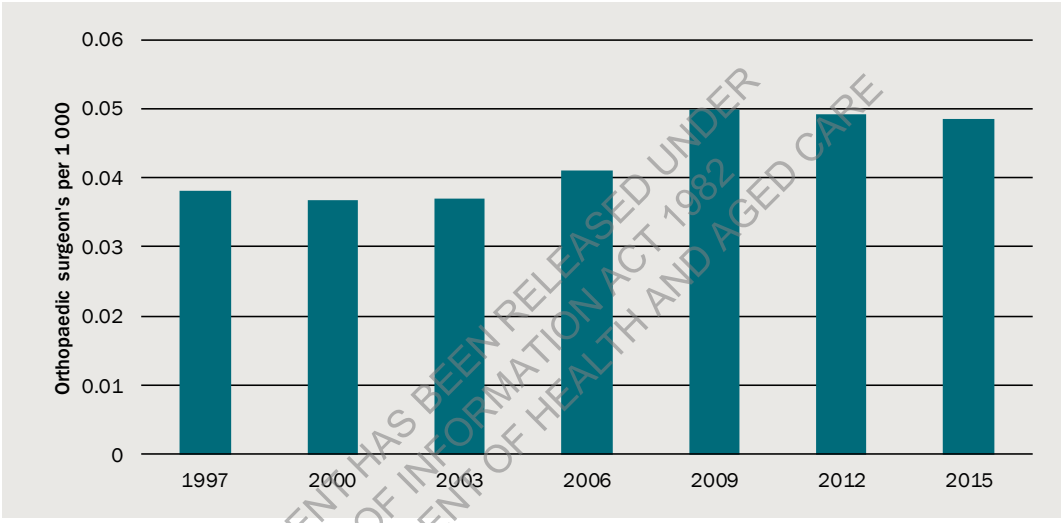
Source: CIE analysis; Australian Institute of Health and Welfare, 'Waiting times for elective surgery', available at: https://www.aihw.gov.au/reports/hospitals/elective-surgery-waiting-times-ahs-2015-16/contents/table-of-contents

Limited capacity within the orthopaedic surgeon workforce

Supply gaps are difficult and slow to address. There has been a discernible flattening in the number of orthopaedic surgeons in Australia since 2009, suggesting little change to the capacity of orthopaedic surgeons to provide MBS funded foot and ankle surgeries (chart 2.3).

In line with this, the Royal Australasian College of Surgeons identified that to maintain the 2010 ratios of orthopaedic surgeons to the population aged over 65, 687 additional surgeons would be required.[32]

2.3 Orthopaedic surgeons per '000 head of population in Australia



Data source: CIE analysis of AIHW medical labour force data and Australian Bureau of statistics population estimates for December of each respective year.

Patient uptake of surgery 'caps out' given supply constraints

There are two datasets that indicate trends in patient access to foot and ankle surgeries that are in the remit of podiatric surgery in Australia.

The first is the ACPS National Audit reports. The second is MBS data on equivalent/comparable surgery undertaken by medical practitioners.

Both tell the same story — that is, by and large, there is limited, stagnant, or declining growth in podiatric surgeries, notwithstanding the underlying factors that are expected to fuel patient demand.

32 Royal Australasian College of Surgeons. 2011, 'Surgical Workforce Projection to 2025, *Volume 1, The Australian Workforce*, p 52, available at: https://www.surgeons.org/media/437871/rpt_racs_workforce_projection_to_2025.pdf

Patients accessing surgery from a podiatric surgeon

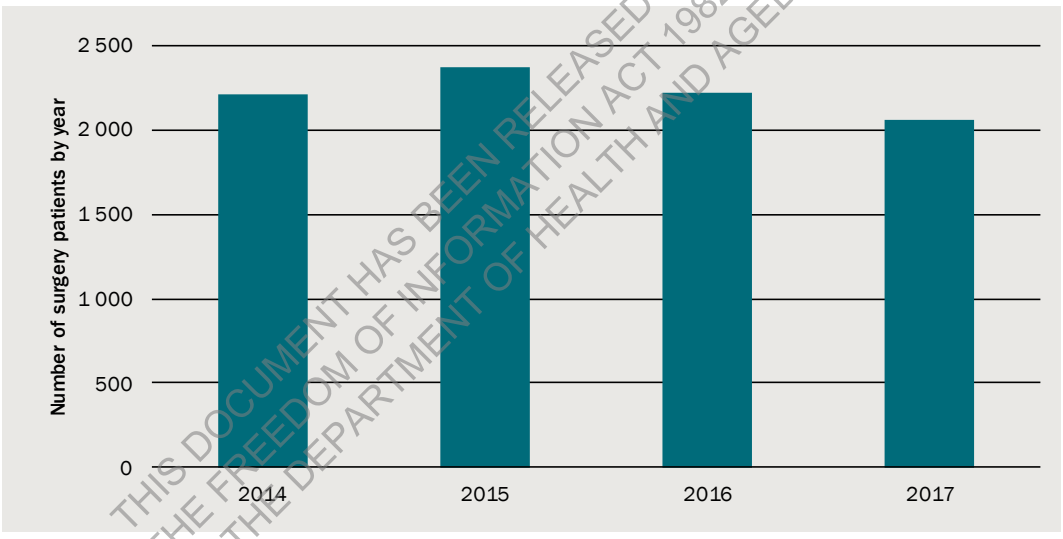
The ACPS National Audit reports the scope of practice, outcomes and patient comorbidities managed by 22 accredited podiatric surgeons in Australia.

It shows that over the three years to December 2017, the number of patients undergoing podiatric surgery has declined (chart 2.4).

The Audit maps podiatric surgery activity to an equivalent MBS code. Data on the top 25 most performed procedures is highlighted in table 2.5.[33]

The 'most common' surgeries show a very mixed picture of activity at the procedure level, but clearly many procedures have declined, and in some cases dramatically, on a year-on- year basis since 2014. Table 2.5 also shows that the equivalent change in MBS activity (orthopaedic surgeons accessing MBS items for like procedures) is generally consistent with the trend in ACPS Audit data.

2.4 Number of patients who underwent Podiatric surgery in 2014 to 2017



Data source: CIE analysis of Audit data provided by ACPS

[33] The top 18 codes were included in the ACPS's previous application to MSAC.

2.5 Top 25 most conducted Podiatric Surgeries in private practice

Item code	Clinical area	2014	2015	2016	2017	Total	Growth in Podiatric surgery	Growth in equivalent MBS surgery
		No.	No.	No.	No.	No.	% p.a.	% p.a
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While the broader picture of MBS activity (across 105 MBS item codes) relating to foot and ankle surgery paints a picture of growth, activity for the subset of procedures akin to existing podiatric surgery have been more stagnant. This indicates that growth in demand is effectively capped in areas where patients face high OOPC with podiatric surgeons or long public hospital waiting lists with orthopaedic surgeons (table 2.6).

2.6 MBS activity relating to foot and ankle surgery for 10 years to 2017

Surgical area	Number of MBS items	Observation
	No.	
Lesser toes	7	▪ The top 2 in volume terms have contracted annually since 2007 ▪ The only item to have shown substantial growth comes off a very low base
Heel surgery	2	▪ The most dominant code has not experienced growth since 2007 ▪ The surgery least accessed has grown by less than 1 per cent annually
Rear foot surgery	2	▪ One has grown relatively well (averaging 5 per cent per annum), whereas the other has contracted consistently since 2007
1st MPJ surgery	14	▪ 9 have experienced a contraction in activity year-on-year since 2007 ▪ The remaining have grown between 1 and 7 per cent annually
Nerve impingement	2	▪ The one specific to foot or ankle surgery has contracted annually since 2007 ▪ While the other has averaged growth just over 7 per cent, it is for surgery more broadly under the Neurosurgical Group
Club foot surgery	7	▪ All have declined annually since 2007
Excision	2	▪ Both have experienced a decline in activity over the last decade
Joint surgery	4	▪ All have grown since 2007, although those with the lowest level of activity have grown the strongest
Muscle/tendon lengthening or release	3	▪ All have grown since 2007, however, the strongest growth has been for the least used item number
Osteotomy	4	▪ All have grown since 2007
Foot and ankle tumour surgery	4	▪ Three of the four items have grown annually since 2007 ▪ One has fallen by close to 6 per cent annually
Toenail surgery	6	▪ The most used has grown less than 2 per cent annually ▪ The lesser used items have both grown and contracted ▪ Note these surgeries are not limited to orthopaedic surgeons
Amputation	9	▪ Growth in access over the last decade ▪ While consistent with underlying epidemiology of risk factors, its arguably the most severe of interventions with the least favourable outcome for patients
Foot and ankle trauma	14	▪ Those most accessed are experiencing a decline in growth over time ▪ The item with the highest growth is accessed infrequently
Ankle surgery	16	▪ 13 of the 16 items for ankle surgery have grown over the past decade ▪ None of these codes have formed part of the ACPS's submission to MSAC

Note: See Appendix B.

Source: Medicare Statistics

3 Cost barriers to accessing surgical care

Restrictions on access to MBS funding for clinically appropriate podiatric surgery results in patients facing high OOPC to privately access the care they need, routinely running into the thousands

Of the 25 most accessed podiatric surgeries, the average additional cost paid by patients of podiatric surgeons due to lack of MBS recognition is $593 for a single MBS item, ranging from $325 to $1 264.

Typically, surgeries straddle multiple MBS items, with the actual cost to patients of receiving care from their podiatric surgeon routinely running into the thousands.

For instance, a case of surgery for hammer toes and pain in the ball of the foot cost the patient $3 002 more that it would have cost if the surgeon could have accessed clinically appropriate MBS item numbers.

Treatment for a hallux valgus (bunion) cost the patient $7 548 more than it would have cost to have received the procedure from an orthopaedic surgeon.

Another patient with a severe toe deformity with dislocation of the lesser metatarsophalangeal joints paid an added cost of $3 258 simply because the surgeon could not access clinically appropriate item numbers.

While some patients covered under the Department of Veterans Affairs can avoid OOPC, if surgery is performed by a podiatric surgeon, the Department will not cover costs.

Only in limited cases are patients able to avoid OOPC for podiatric surgery if they can access both MBS funding and the most favourable of private health insurance policies.

High out of pocket costs is the biggest barrier to patients accessing care from podiatric surgeons

Patients that access non-MBS funded podiatric surgery face high OOPC, as well as a restriction on provider choice where MBS support is needed to afford care.

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While data was not available outside of WA, it is expected that patient cancellations due to affordability would be even greater, given that the majority of PHI policy holders in WA are insured with HBF, which is the only health fund in Australia that provides a high level of coverage for podiatric surgery.

Case studies from deidentified patient stories for those that cancelled/did not proceed with recommended podiatric surgery are presented in boxes 3.1 to 3.5. These shown that affordability issues do not discriminate between males and females, the unemployed, employed and retired, or the complexity of surgery required.

The size of the cost impost for case study patients examined show that OOPC would reduce by between 16 to 100 per cent if the podiatric surgeon was able to access the relevant MBS item for podiatric surgery.

Moreover, failing to proceed with surgery results in preventable impacts on quality of life, with patients experiencing:

- pain
- difficulty walking
- difficulty wearing footwear
- difficulty exercising, and
- difficulty participating in recreational activities.

If a patient cannot afford treatment from a podiatric surgeon but cannot avoid it either, they need to return to their GP for (an avoidable) referral to a medical practitioner, join the waiting list for public hospital care, or access private orthopaedic care.

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3.1 Patient experience #1

Age: s47F
Gender: s47F
Occupation: s47F
Condition: hallux valgus (bunion)

A s47F presented in April 2018 for advice and assessment of recurrent hallux valgus (bunion) deformity.

Approximately 20 years ago she had failed orthopaedic foot surgery whilst living in s47F

The patient's bunion has become increasingly painful, limits footwear exclusively to extra width training shoes and affects ability to exercise. She has other co-morbidities such as osteoporosis, which is managed by her rheumatologist. The patient has had non-operative care in the form of footwear advice, bunion shields and in shoe foot orthoses from a local podiatrist for several years. She now seeks a permanent solution to her recurrent problem.

To achieve this, the patient requires primary metatarsal ostectomy of the 1st metatarsal (MBS item 49833), ligament/capsular repair (digital) (MBS item 50106), insertion of internal fixation (MBS item 47921) and a post op shoe. Surgery also requires associated anaesthesia and hospital costs.

Despite being well positioned to offer a solution to the patient's chronic problem the podiatric surgeon informs the patient that she will need to go and see her GP for a referral to an orthopaedic surgeon as the Department of Veteran Affairs does not cover podiatric surgery.

Out of pocket costs
Without MBS access: $7 548
With MBS access: $0
Savings to patient: $7 548 (100 per cent)

Note: Photo is illustrative only and not the patient

3.2 Patient experience #2

Age: s47F
Gender: s47F
Occupation: s47F
Condition: hallux valgus (bunion)

A s47F is referred by her GP for assessment of her painful left bunion in April 2018.

She has been managing her condition for many years, but it has progressively become worse to the point that she can only wear sandals, which is uncomfortable during the s47F winters. She describes severe burning and numbness along the first toe joint, which affects her ability to exercise.

Her podiatric surgeon provides her with an overview of non-surgical and surgical solutions as well as describing the considerations surround surgical correction, recovery time etc. She is happy with the information and would like to proceed with a permanent correction of the problem. To achieve this, the patient requires primary metatarsal ostectomy of the 1st metatarsal (MBS item 49833), ligament/capsular repair (digital) (MBS item 50106), insertion of internal fixation (MBS item 47921) and a post op shoe.

The podiatric surgeon politely informs the patient that despite being a registered specialist there is currently no Medicare funding for podiatric surgery or a public podiatric surgery post. Upon hearing this, the patient requests a referral to an orthopaedic surgeon. Her podiatric surgeon informs her that she will need to return to her GP to obtain a referral and facilitate this by writing a letter back to her referring practitioner.

Out of pocket costs
Without MBS access: $7 548
With MBS access: $6 309
Savings to patient: $1 238 (16 per cent)

Note: Photo is illustrative only and not the patient

3.3 Patient experience #3

Age: s47F
Gender: s47F
Occupation: s47F
Condition: severe left 2nd to 5th hammer toes and pain in the ball of the foot

In March 2018 s47F presented complaining of painful left 2nd to 5th hammer toes and associated pain the ball of the foot.

X-rays demonstrate a dislocated 2nd and contracted 3rd, 4th and 5th hammer toes with long 2nd, 3rd and 4th metatarsals. The hammer toe deformities cause the 2nd to 5th toes to rub against all forms of enclosed footwear. Metatarsals 2 to 4 were overloaded because of the hammer toe deformities. The patient had developed painful corns of the proximal interphalangeal joints of the hammer toes. A painful callus under the 2nd to 4th metatarsal heads also develops. The patient has already been receiving monthly debridement of the callus by their general podiatrist. She has also been using accommodative footwear and custom foot orthosis, but her foot pain has not responded to these measures.

Her medical history includes asthma managed with a Ventolin (salbutamol) inhaler and gastro-oesophageal reflux disease (GORD) treated with Nexium (esomeprazole). There is no contraindication to surgery. The podiatric surgeon informs the patient of the likely outcomes and possible complications of surgery. Her foot pathology can be corrected using a minimally invasive technique with a same day admission. The operation will require a phalangeal osteotomy (MBS:48403) of toes 2 to 5 and a neck osteotomy (MBS: 48403) of metatarsals 2 to 3.

Out of pocket costs
Without MBS access: $4 031
With MBS access: $1 029
Savings to patient: $3 002 (74 per cent)

As a retired factory worker on a pension the patient was unable to proceed because her health insurance company (s47G) will not provide a rebate beyond Minister's default for the hospital costs only.

Note: Photo is illustrative only and not the patient

3.4 Patient experience #4

Age: s47F
Gender: s47F
Occupation: s47F
Condition: bunion with flexion contracture of the 4th and 5th toes

In May 2018 s47F presented complaining of a painful right bunion with 4th and 5th hammer toes for 2 years. X-ray evaluation demonstrates a large right hallux abducto valgus (bunion) deformity with flexion contracture of the 4th and 5th toes.

The bunion and hammer toes rub against all forms of enclosed footwear. She has been using accommodative footwear and custom orthosis for the past 5 years and seeing her general podiatrist regularly, but her pain has continued to increase over the last 2 years.

She uses Nexium (esomeprazole) to manage gastro-oesophageal reflux disease (GORD) and there is no contraindication to surgery. The podiatric surgeon explains that her right foot pathology can be corrected with podiatric surgery using a same day admission. The operation will require a 1st metatarsal osteotomy (MBS item 49833), ligament capsular repair (MBS item 50106), insertion of internal fixation (MBS item 47912) and phalangeal osteotomy (MBS item 48403).

Out of pocket costs
Without MBS access: $4 891
With MBS access: $1 830
Savings to patient: $3 061 (63 per cent)

The patient is informed by her health fund (s47G that only Minister's default rate will be paid for hospital cost and nothing for the surgical or anaesthetic fees.

Note: Photo is illustrative only and not the patient

3.5 Patient experience #5

Age: s47F
Gender: s47F
Occupation: s47F
Condition: severe toe deformity with dislocation of the lesser metatarsophalangeal joints

A s47F patient required treatment for severe toe deformity with dislocation of the lesser metatarsophalangeal joints.

The patient previously had orthopaedic surgery on both feet around 10 years ago. Both operations had failed and in 2015 she underwent a successful revision procedure for one foot with her podiatric surgeon at the private hospital in s47F. The surgery involved pan metatarsal head resection, or, removal of 5 of the metatarsal heads. The patient was very happy with the outcome and intends to have her other foot revised in 2019. s47G The patient underwent osteotomy of the phalanx or metatarsal with internal fixation (MBS item 48403), 4 x metatarsophalangeal arthroplasty (MBS item 49848), 4 x digital arthroplasty (MBS item 49848) and insertion of internal fixation (MBS item 47921). The surgery required both an assistant and an anaesthetist.

In April 2018, the patient contacted her podiatric surgeon to express her concerns about an experience she had recently with a specialist anaesthetist. At a pre-operative consult for a total knee replacement, the patient had mentioned to her anaesthetist that she planned to have podiatric surgery. Despite the fact that the patient had already had failed orthopaedic foot surgery, the anaesthetist had spent considerable effort trying to convince the patient to go to see an orthopaedic surgeon as it would be *cheaper* and that the anaesthetic would be fully covered.

Out of pocket costs
Without MBS access: $5 562
With MBS access: $2 304
Savings to patient: $3 258 (59 per cent)

Note: Photo is illustrative only and not the patient

Costs to patients matter

The OOPC incurred by patients accessing services to podiatric surgery depend on whether patients have:

- PHI or not
- PHI that covers podiatric surgery

- top tier PHI but are covered under minimum benefits for podiatric surgery[35] — namely those with HCF and Medibank Private, and/or
- top tier private health insurance with HBF and receive coverage for podiatric surgery in addition to minimum benefits.

Patients without PHI or those with policies that do not cover podiatric surgery (such as all Bupa policy holders) must pay all fees in full (for instance, surgeon fees, anaesthetist fees, and hospital fees). Often, private health insurers will not pay benefits for podiatric surgery because it is not listed on the MBS. For instance, a recent patient inquiry to a major health fund regarding coverage for podiatric surgery received the following response:

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Table 3.6 presents a breakdown of the type of PHI coverage that private podiatric surgery patients have, by state. With the exception of WA, at least 78 per cent of patients in each state either **do not** have PHI or are **not covered** by a fund that pays benefits for podiatric surgery. Hence, patients would be substantially better off if their OOPC were reduced by claiming MBS benefits for items related to podiatric surgery.

3.6 PHI status of patients accessing surgery from podiatric surgeons

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On average, consumers are spending $593 more than they otherwise would for private podiatric surgery, compared to if MBS rebates were available for each MBS-relevant procedure. The cost impost specifically related to a lack of MBS access can be higher or

35 Minimum benefits as dictated by the Private Health Insurance (Benefit Requirements) Rules 2011, Schedule 3- Same day accommodation: hospitals in all States/Territories

36 Confidential letter from a private health insurer to its member.

lower depending on the PHI status of the consumer but remains high enough to be of concern to consumers, and in some cases, is prohibitive enough to mean that treatment is avoided.

This is based on economic modelling on the top 25 most accessed podiatric surgeries, comparing the status quo with financial outcomes were podiatric surgeons able to access relevant MBS items. These top 25 items account for 85 per cent of podiatric surgeries accessed by patients.[37]

The average reduction in patient out of pocket expenses, would be 15 per cent for patients with no form of insurance coverage, s47G and 17 per cent for patients covered by a fund that pays minimum benefits for podiatric surgery (chart 3.8). An item-by-item breakdown of expected patient savings by private health insurance status is presented in Appendix C.

3.7 Expected patient cost without and with MBS benefits for the 25 most accessed podiatric surgery procedures

Patient type	Minimum	Maximum	Average
	$	$	$
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37 CIE analysis of Audit data provided by ACPS.

3.8 Average out of pocket costs for patients with and without MBS access for podiatric surgery

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Further evidence that costs to patient matter is seen in data from WA Health on podiatric surgery per '000 head of population, compared to access levels in other states.

As shown in table 3.9, patient access to podiatric surgery is considerably higher in WA than elsewhere, where OOPC to patients (because of high PHI coverage with an insurer that recognises podiatric surgery) are the lowest.

3.9 Podiatric surgery utilisation per 100 000 population

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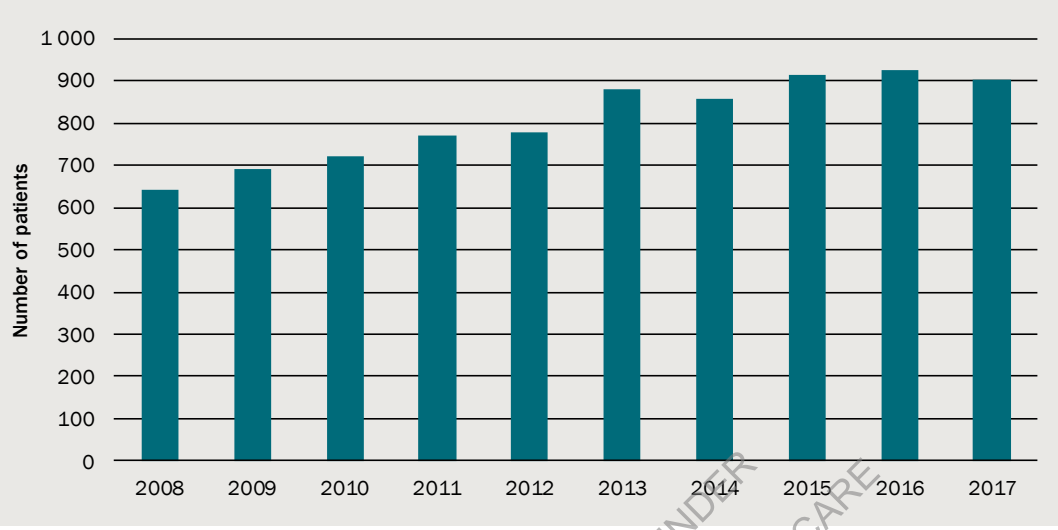
Podiatric surgery activity is also consistently growing across the state, with the number of patients undergoing surgery rising 4 per cent annually over the last 10 years (chart 3.10).

3.10 Podiatric surgery separations in Western Australia



Note: time period is reported in financial years (i.e. 2008 refers to July 2007 to June 2008)

Data source: Hospital Morbidity Data Collection, Western Australian Health.

Paying for the delay: living with foot and ankle pain

Longitudinal evidence from a large scale three stage study on prevalence and correlates of foot pain found that foot pain is experienced widely across the Australian population:

- 17.4 per cent of participants had foot pain on most days of the past month, 63 per cent of which had pain in both feet
- foot pain was experienced across all age groups, and its causes varied. Foot pain experienced by younger adults was considered most likely due to musculoskeletal conditions, whilst the foot pain experienced by older adults was likely due to toe deformities, corns and calluses. In particular,
  - arch pain and heel pain was most prevalent among those aged 20 to 34
  - forefoot pain was most prevalent for those aged 55 to 64
  - toe pain and nail pain were the most prevalent for those aged 75 years and over
- foot pain was found to be more likely to occur among females, older Australians, those that were obese or had pre-existing knee, hip or back pain:
  - females were 1.4 times more likely to experience foot pain than males
  - people aged 45 to 54, 55 to 64 and over 65 were 2.4, 2.8 and 3.1 times, respectively, more likely to experience foot pain than those aged 20 to 35
  - people with a BMI of greater than or equal to 30 were almost 2 times more likely to experience foot pain than those with a BMI of less than 30, and
  - people with knee, hip or back pain were nearly 2.5 times more likely to experience foot pain than those without, and

- quality of life indicators showed those with foot pain had statistically significant worse outcomes than those without, based on SF-36 scores taken during Stage II, for physical functioning, bodily pain, general health, vitality, social functioning and mental health.[38]

If clinically necessary surgical services cannot be accessed in a timely way, avoiding or delaying surgery leads to high future healthcare costs and poor patient outcomes. In people with diabetes, prompt conservative surgical management to salvage the diabetic foot has been found to avoid below the knee amputation.[39] In patients with diabetes and forefoot ulcers complicated by osteomyelitis (accounting for 22 to 66 per cent of all diabetic foot complications)[40], conservative surgery which involves only removing the infected bone can be performed to reduce healing time, duration of antibiotic therapy and avoid amputation.[41]

Treating patients early, or at least in a timely way, both minimises pain and immobilisation, and improves the probability of surgery success, thereby avoiding repeated surgery and amputation. Delays in surgery for an ankle fracture has also been found to be associated with increased length of hospital stay and complication rates.

- Pietzik et al (2006) found that in patients who had surgery within 48 hours, the length of stay was nearly half that compared to those who were operated on after 48 hours (mean length of stay 5.4 days verse 9.5 days respectively.[42]
- Sukeik et al (2010) found that in patients who had surgery within 24 hours, length of stay was more than half that compared to those who were operated on after 24 hours (mean length of stay 3.8 days verse 8.6 days respectively).[43]
- Singh et al (2015) found mean post-operative stay in patients with closed ankle fractures who were treated within 24 hours was 2.9 days compared to 5.5 days in those treated after 24 hours.[44]

38 Hill, C.L., Gill, T.K., Menz, H.B. & Taylor, A.W. 2008, 'Prevalence and correlates of foot pain in a population-based study: the North West Adelaide health study', *Journal of foot and ankle research*, vol. 1, no. 1, pp. 2-2; Gill, T.K., Menz, H.B., Landorf, K.B., Arnold, J.B., Taylor, A.W. & Hill, C.L. 2016, 'Predictors of foot pain in the community: the North West Adelaide health study', *Journal of foot and ankle research*, vol. 9, no. 1, pp. 23.

39 van Baal, J.G. 2004, 'Surgical Treatment of the Infected Diabetic Foot', *Clinical Infectious Diseases,* vol. 39, no. Supplement 2, pp. S123-S128.

40 Cheer, K., Shearman, C. & Jude, E.B. 2009, 'Managing complications of the diabetic foot', *BMJ*, vol. 339, no. 7733, pp. 1304-1307.

41 Fujii, M., Terashi, H. & Yokono, K. 2016, 'Surgical treatment strategy for diabetic forefoot osteomyelitis: Surgical strategy for diabetic forefoot osteomyelitis', *Wound Repair and Regeneration*, vol. 24, no. 2, pp. 447-453

42 Pietzik, P., Qureshi, I., Langdon, J., Molloy, S. & Solan, M. 2006, 'Cost benefit with early operative fixation of unstable ankle fractures', *Annals of The Royal College of Surgeons of England*, vol. 88, no. 4, pp. 405-407.

43 Sukeik, M. 2010, 'Early surgery for ankle fractures may improve outcomes, reduce costs', *Injury Extra*, vol. 41, pp. 133-134, available at: https://www.healio.com/orthopedics/foot-ankle/news/print/orthopedics-today/%7B08423242-ff76-486f-8f10-56e1faa62d14%7D/early-surgery-for-ankle-fractures-may-improve-outcomes-reduce-costs

44 Singh, R.A., Trickett, R. & Hodgson, P. 2015, 'Early versus Late Surgery for Closed Ankle Fractures', *Journal of Orthopaedic Surgery*, vol. 23, no. 3, pp. 341-344.

4 Need for a level playing field

International experience, and the limited examples of Australian experience, suggest that limiting MBS access to medical practitioners only, for the types of podiatric surgery performed by podiatric surgeons, is ultimately anticompetitive.

Podiatric surgeons deliver surgical care in comparable procedures

Podiatric surgeons unable to access the MBS are already meeting a sizeable proportion of market for podiatric surgery. Hence, the supply market for podiatric surgery is much broader than is recorded by the MBS.

This is particularly so for a selection of procedures, such as:

- surgery for hallux valgus correction (with an equivalent MBS item number of 49833, 49836 and 49821)
- surgery for management of Achilles tendon rupture in the ankle (with an equivalent MBS item number of 47921)
- surgery for subcutaneous tenotomy in the foot (with an equivalent MBS item number of 49806), and
- surgery for the correction of claw or hammer toe (with an equivalent MBS item number of 49848).

In several of these cases, podiatric surgeons are bearing approximately 50 per cent of the total case-load, pointing to large patient numbers that are having to access surgery privately, without any recourse to the MBS (table 4.1).

4.1 Podiatric surgeons account for sizeable proportion of the caseload

Item	Clinical area	MBS activity	Equivalent PS activity	Total activity	Amount accounted for by PS
s47G					

Podiatric surgeons are demonstrably competent and well trained

Podiatric surgeons have completed a training program which has been accredited by the Australian and New Zealand Podiatry Accreditation Council.

The Podiatry Board of Australia (the Board) is the governing body that oversees the registration of podiatrists and Podiatric surgeons in Australia.[45] The Board is supported by the Australian Health Practitioner Regulation Agency (AHPRA) which is guided by the Health Practitioner National Law Act 2009. AHPRA works with the Board to ensure that Podiatric surgeons are registered, suitably trained, behave ethically and are competent. The overarching objective of AHPRA and the Board is to protect the health and safety of the public.[46]

Endorsement by the Board and AHPRA indicates that podiatric surgeons are competent health care providers.

Moreover, under S3AAA of the Health Insurance Act 1973, registered podiatric surgeons are recognised as specialist podiatrists who are approved as accredited and gazetted by the Minister for Health as qualified to provide surgical procedures of the foot and ankle. These procedures are the same as those provided by general, orthopaedic and vascular surgeons.

Limits to competition

The exclusion of Podiatric surgeons from accessing the MBS for procedures which they already safely and effectively conduct in the private setting is ultimately anti-competitive, and unnecessarily limits competition in the market, and certainly market contestability.

Competition is important to community welfare because it provides consumers with choice and incentivises providers to reduce costs and maximise use of scarce resources.[47]

In acknowledgement of Australia's ageing population and forecasted increase in demand for health services, the 2015 Competition Policy Review (Harper Review) recommended that in the human services:

> …user choice should be placed at the heart of service delivery…[48]

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45 Podiatry Board of Australia. 2017, 'Registrant data, Reporting period: 1 October 2017 – 31 December 2017', available at: http://www.podiatryboard.gov.au/About/Statistics.aspx

46 Australian Health Practitioner Regulation Agency. 2015, 'Regulatory principles for the National Scheme', available at: https://www.ahpra.gov.au/About-AHPRA/Regulatory-principles.aspx

47 Australian Government Productivity Commission. 2014, 'Submission to the Competition Policy Review', available at: http://www.pc.gov.au/research/supporting/competition-policy-review/competition-policy-review-submission.pdf

48 Harper, I., Anderson, P., McCluskey, S. & O'Bryan , M. 2015, 'Competition Policy Review, Final Report', The Australian Government Competition Policy Review, p. 239, available at: http://competitionpolicyreview.gov.au/files/2015/03/Competition-policy-review-report_online.pdf

In other specialities, there has been greater recognition of the scope to improve market contestability. Three recent cases where barriers to competition in the health sector in Australia have been removed include:

- Pathology providers. From the 1st of July 2010, the Health Insurance Amendment (Pathology Requests) Act 2010, was entered into force. Under this legislation, patients can choose their pathology or diagnostic imaging provider for Medicare services. Prior to this, to be eligible for the Medicare rebate patients were required to use the pathology provider chosen by their health practitioner. The changes were made to increase consumer choice, discourage inducement or threat, prohibit inappropriate commercial relationships between requesters and pathology providers and protect patient rights.[49]
- Nurse Practitioners (NPs). NPs have been shown to improve efficiency in the health system, for instance by reducing hospitalisations, average length of stay, unscheduled GP visits in aged care facilities, the use of specialist and consultant physician services and the need for patients to travel long distances for services, as well as, improving access to timely primary care, patient satisfaction, and patient health literacy.[50] In September 2010, NPs endorsed to prescribe under State or Territory legislation became eligible to apply for approval as a PBS prescriber.[51] Following this, in November, the Health Legislation Amendment (Midwives and Nurse Practitioners) Act 2010, provided NPs in private practice with access to the MBS.[52] Under the Act NPs were permitted to deliver rebated Medicare services such as history taking, clinical examination, implementing a management plan, providing appropriate preventative health care, arranging diagnostic and pathology requests and providing

49 The Department of Health. 2015, 'Requests for pathology and diagnostics imaging services', available at: http://www.health.gov.au/internet/main/publishing.nsf/Content/reqs-path-di-services

50 Stanley, M., Worrall-Carter, L., Rahman, M.A., McEvedy, S. & Langham, R. 2015, 'Assessment of an established dialysis nurse practitioner model of care using mixed methods research', *Contemporary Nurse*, vol. 51, no. 2-3, pp. 148-162; Coventry, L.L., Pickles, S., Sin, M., Towell, A., Giles, M., Murray, K. & Twigg, D.E. 2017, 'Impact of the Orthopaedic Nurse Practitioner role on acute hospital length of stay and cost-savings for patients with hip fracture: A retrospective cohort study', *Journal of Advanced Nursing*, vol. 73, no. 11, pp. 2652-2663; Nazareth, S., Piercey, C., Tibbet, P. & Cheng, W. 2008, 'Innovative Practice in the Management of Chronic Hepatitis C: Introducing the Nurse Practitioner Model', *The Australian Journal of Advanced Nursing*, vol. 25, no. 4, pp. 107-113; Roche, T.E., Gardner, G. & Jack, L. 2017, 'The effectiveness of emergency nurse practitioner service in the management of patients presenting to rural hospitals with chest pain: a multisite prospective longitudinal nested cohort study', *BMC Health Services Research*, vol. 17; Hungerford, C., Prosser, B., Davey, R. & Clark, S. 2016, 'The Australian 'grey nomad' and aged care nurse practitioner models of practice: a case study analysis', *Rural and remote health*, vol. 16, no. 2, pp. 3647; Davey, R., Clark, S., Goss, J., Parker, R., Hungerford, C. & Gibson, D. 2015, 'National Evaluation of the Nurse Practitioner – Aged Care Models of Practice Initiative: Summary of Findings', *Centre for Research & Action in Public Health*. UC Health Research Institute, University of Canberra.

51 Australian Government Department of Health – The Pharmaceutical Benefits Scheme. 2017, "Nurse practitioners PBS prescribing", available at: https://www.pbs.gov.au/browse/nurse

52 Australian Government Department of Health. January 2014, "Eligible Nurse Practitioner Services", *Questions and Answers*.

referral to specialist services. In July 2011, six additional items were added to the MBS to enable NPs to participate in video consultations with a patient in an aged care facility or Aboriginal Medical Service and their specialist or consultant physician.

- Optometrists. From the 1st of January 2008 optometrists accredited to prescribe medication under State or Territory Legislation became eligible to be endorsed as a PBS prescriber.[53] In March 2015, the Pharmaceutical Benefits Advisory Committee (PBAC) recommended that the restrictions around Optometrist prescribing of anti-glaucoma be relaxed.[54] Prior to this, to be eligible to prescribe an anti-glaucoma medication, optometrists were required to be working in a shared care model with an ophthalmologist. In making its recommendation, the PBAC agreed with the Optometry Board's estimates that expanding prescriber rights would have minimal financial impact on the Commonwealth and that any additional costs would be offset by improved health outcomes associated with earlier commencement of treatment. Moreover, the PBAC reinforced that it was the role of the Optometry Board of Australia to determine whether Optometrists were qualified to prescribe anti-glaucoma medications, not the PBAC:

  … the issue for the Committee is PBS-subsidised access for patients by means of authorised health professionals approved to prescribe in the relevant state and territory jurisdictions, rather than work-force capability issues…the competency of optometrists to prescribe is the responsibility of the Optometry Board of Australia, and not the PBAC…[55]

Australian trials using surgeons in public hospitals have been successful

There is a history of podiatric surgeons providing operative care in the Australian public system. Perhaps the most significant been a long-standing position in Adelaide, for twenty years podiatric surgeons safely and effectively provided services at Daw Park Repatriation Hospital in South Australia. This was the first instance of podiatric surgeons operating in an Australia public hospital and involved training podiatric surgeons and service provision (see box 4.2 below).

A more recent Australian example of the involvement of Podiatric surgeons in public hospitals was a study conducted at the High-Risk Foot Clinic, Heidelberg Repatriation Hospital, Austin Health, Victoria, to assess the safety and efficacy of percutaneous tenotomy for the management of diabetic digital ulcers in the outpatient setting between December 2015 and October 2017. The study was designed in collaboration with the vascular, endocrinology and radiology departments.

Percutaneous tenotomy facilitates healing of ulcerations with between 92 per cent and 100 per cent of ulcers resolving following surgery, and a mean time to heal ranging from

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53 The Pharmaceutical Benefits Scheme. 'Optometrist PBS prescribing', available at: https://www.pbs.gov.au/browse/optometrical

54 Pharmaceutical Benefits Advisory Committee. 2015, 'Anti-Glaucoma Medicines, Various; Optometry Australia', *Public Summary Document,* March 2015 Meeting.

55 Ibid. p. 6

21-56 days. The procedure is also associated with low complications and low recurrence rates. For instance, the rate of infection is between 0 per cent and 5 per cent and the rate of re-ulceration is between 0 per cent and 14 per cent (however, re-ulceration is associated with concurrent infection penetrating to the bone at the time of tenotomy).

Over the study period, a podiatric surgeon performed 68 tenotomies on 24 patients to treat active digital ulceration or pre-ulceration. All patients had diabetes mellitus and peripheral neuropathy, and many had multiple comorbidities (i.e. cardiac, pulmonary, renal or oncological). Following tenotomy:

- 0 per cent of patients had a recurrence of ulceration(s)
- there was one complication — a mild case of soft tissue infection that was successfully managed with oral antibiotics, and
- 100 per cent of patients were satisfied with the procedure.

The research confirmed the findings from broader research, which demonstrates percutaneous tenotomy performed by a podiatric surgeon provides a safe and efficient resolution to refractory foot ulceration and is associated with low infection risk.[56]

56 Tamir, E., McLaren, A., Gadgil, A. & Daniels, T.R. 2008, 'Outpatient percutaneous flexor tenotomies for management of diabetic claw toe deformities with ulcers: a preliminary report', *Canadian journal of surgery. Journal canadien de chirurgie*, vol. 51, no. 1, pp. 41; Schepers, T., Berendsen, H.A., Oei, I.H., & Koning, J. 2010, 'Functional Outcome and Patient Satisfaction after Flexor Tenotomy for Plantar Ulcers of the Toes', *The Journal of Foot and Ankle Surgery*, vol. 49, no. 2, pp. 119-12; van Netten, J.J., Bril, A. & van Baal, J.G. 2013, 'The effect of flexor tenotomy on healing and prevention of neuropathic diabetic foot ulcers on the distal end of the toe', *Journal of foot and ankle research*, vol. 6, no. 1, pp. 3-3; Tamir, E., Vigler, M., Avisar, E. & Finestone, A.S. 2014, 'Percutaneous Tenotomy for the Treatment of Diabetic Toe Ulcers', *Foot & Ankle International*, vol. 35, no. 1, pp. 38-43; Lipsky, B.A., International consensus group on diagnosing and treating the infected diabetic foot & The International Consensus Working Group on Diagnosing and Treating the Infected Diabetic Foot 2004, 'A report from the international consensus on diagnosing and treating the infected diabetic foot', *Diabetes/Metabolism Research and Reviews*, vol. 20, no. S1, pp. S68-S77; Lipsky, B.A., Berendt, A.R., Embil, J. & de Lalla, F. 2004, 'Diagnosing and treating diabetic foot infections', *Diabetes/Metabolism Research and Reviews*, vol. 20, no. S1, pp. S56-S64; Laborde, J.M. 2007, 'Neuropathic Toe Ulcers Treated with Toe Flexor Tenotomies', *Foot & Ankle International*, vol. 28, no. 11, pp. 1160-1164; Kearney, T.P., Hunt, N.A. & Lavery, L.A. 2010, 'Safety and effectiveness of flexor tenotomies to heal toe ulcers in persons with diabetes', *Diabetes Research and Clinical Practice*, vol. 89, no. 3, pp. 224-226.

4.2 Podiatric surgeons operating at Daw Park Repatriation Hospital in South Australia

Podiatric Surgery was performed in both outpatients and operating theatres from 1978 until 2010 at the Repatriation General Hospital in South Australia prior to restructuring and ultimate closure of the hospital. Podiatric surgery at the RGH had evolved during that time in accordance with national and international trends in workforce reform and models of service delivery.

Prior to 2002, the majority of podiatric surgery was performed under local anaesthesia and involved the correction of hammer toes and ingrown toe nails. This in part due to limited availability of anaesthetists due to shortages of staff. Since 2002, the scope of practice had evolved so that the majority of surgery was performed in general theatres staffed by an anaesthetist and theatre nurses. During this time there were no dedicated Foot and Ankle Orthopaedic Surgeons within the southern region of South Australia. The range of procedures performed in theatre included bunion correction, hallux limitus, hammer toe correction metatarsal osteotomies, neurectomy and tendon procedures.

In this region, podiatric surgery had to a large extent taken on the roles traditionally provided by orthopaedic surgeons.

In 2010 elective orthopaedics was relocated to the RGH and concerns were raised by the head of the Department of Orthopaedics as to the presence of podiatric surgery. This ultimately led to the closure of the podiatric surgical unit.

During the time podiatric surgery was performed at the RGH there had not been any adverse clinical outcomes resulting in readmission. Patient satisfaction was high and Department of Procedure and Related Services was supportive of podiatric surgery as it had proved to be safe and more cost effective that orthopaedic surgery.

Internationally podiatric surgeons provide government funded surgery

Experience from abroad indicates that podiatric surgeons are already routinely working in multi-disciplinary teams in public hospitals, and patients are accessing government funding for podiatric surgery in the private sector.

In the United States today, podiatrists, more commonly referred to as doctors of podiatric medicine have access to government funding through the Medicare system.[57] Moreover, doctors of podiatric medicine have been working in multidisciplinary teams, particularly in diabetes and amputation prevention for many years. For instance, general surgeon Dr

57 Centre for Medicare & Medicaid Services. 2018, 'Section 40.4, Definition of Physician/Practitioner', *Medicare Benefit Policy Manual, Chapter 15 – covered medical and other health services, revision 241, 02-02-18*, p 25, available at: https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/bp102c15.pdf

Frank C. Wheelock Jr who had an unrivalled reputation for managing the surgical complications of diabetes, started an annual diabetic foot conference in 1981 that included podiatrists as faculty members and showcased the successful partnership of vascular surgeons with podiatrists. Moreover, in the 1990s, collaboration between vascular surgeons and podiatric surgeons within the Division of Vascular Surgery at the New England Deaconess Hospital saw a reduction in toe and transmetatarsal amputations using local podiatric procedures and foot-sparing surgery. In the 1980s and 1990s, doctors of podiatric medicine worked in multidisciplinary diabetic foot teams at Veteran Affairs Medical Centres. The combined use of preventative foot care, therapeutic footwear and podiatric limb sparing procedures was said to demonstrate the value of podiatric surgery for the management of diabetes related foot complications.[58]

In the UK, podiatric surgeons have long provided clinical assessment and surgical care for foot and ankle conditions in both the private and public hospital setting. There are currently 46 NHS podiatric surgery units.[59]

The integration of podiatric surgeons into models of care for foot conditions is continuously expanding to accommodate the changing nature of foot disease in the UK. For instance, in Manchester, a 'lower limb preservation team' (The Manchester Model) was established to integrate podiatric with vascular surgery.[60] Over the three-year period of implementation, a 23 per cent decrease in the number of major amputations was observed. The model was developed to improve patient outcomes, given that there has been an increase in the number of patients presenting with foot disease and compromised circulation. The complexity of these cases means that patients benefit from the joint knowledge and decision making of the podiatric surgeon and vascular surgeon.

The integration of podiatric surgeons within the NHS is associated with positive patient outcomes, both in terms of safety, efficacy and patient satisfaction. The Podiatric Audit of Surgery and Clinical Outcome Measure System (PASCOM) has been used by Podiatric surgeons in the UK since 1987 to evaluate Podiatric surgeon activities (types of surgery, clinical outcomes and patient satisfaction).[61]

The 2017 audit indicates podiatric surgeons perform diverse procedures in both the NHS and private setting. Most frequently undertaken surgeries include arthrodesis, arthroplasty of the lesser toe, osteotomy of the first metatarsal, hallux osteotomy, tenotomy and nail surgery. The rate of complication was 20 per cent, with only 43 cases of proven infection.[62]

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58 Sanders, L.J., DPM, Robbins, J.M., DPM & Edmonds, Michael E., MD, FRCP. 2010, 'History of the team approach to amputation prevention: Pioneers and milestones', *Journal of Vascular Surgery*, vol. 52, no. 3, pp. 3S-16S.

59 The College of Podiatry, https://www.scpod.org/foot-health/Podiatric-surgery/

60 Ahmad, N., Taylor, S., Chadwick, P., Tagoe, M. & Bowling, F. 2018, 'Integrating podiatric with vascular surgery — the Manchester Model. A paradigm shift resulting in fewer major amputations', *The Diabetic Foot Journal*, vol. 21, no. 1, pp. 48-51.

61 The College of Podiatry, 'PASCOM-10: A journey of success for the future', available at: http://www.pascom-10.com/about-pascom-10

62 The College of Podiatry. 2017, 'PASCOM National Data Reports for Podiatric Surgery, Nail surgery and Injection therapies'.

The findings from the audit indicate a consistently high level of patient satisfaction with podiatric surgery services (table 4.3). In 2017, 94 per cent of patients believed that their original condition was either better or much better following surgery and 96 per cent indicated that they would undergo surgery again given the same condition. Similar results are results are seen in the literature (box 4.4).

4.3 Patient satisfaction following podiatric surgery in the UK

Response	2010	2017
	Per cent	Per cent
Patient believed that surgery risks were explained	98	98
Patient believed original condition was either *better* or *much better* following surgery	91	94
Patient would undergo surgery again given the same circumstances	94	96
Patient could wear regular shoes by week 12 post-surgery	91	92
Patient did not experience any problem post-surgery	71	76
If a problem did it occur, problem was addressed to a satisfactory or excellent standard	86	89

Note: The 2017 audit involved 2 559 patients across 103 centres; The 2010 audit involved 1 811 patients across 55 centres; Patients who did not provide a response were excluded from the analysis.

Source: The College of Podiatry, 'PASCOM National Data Reports for Podiatric Surgery, Nail surgery and Injection therapies'.

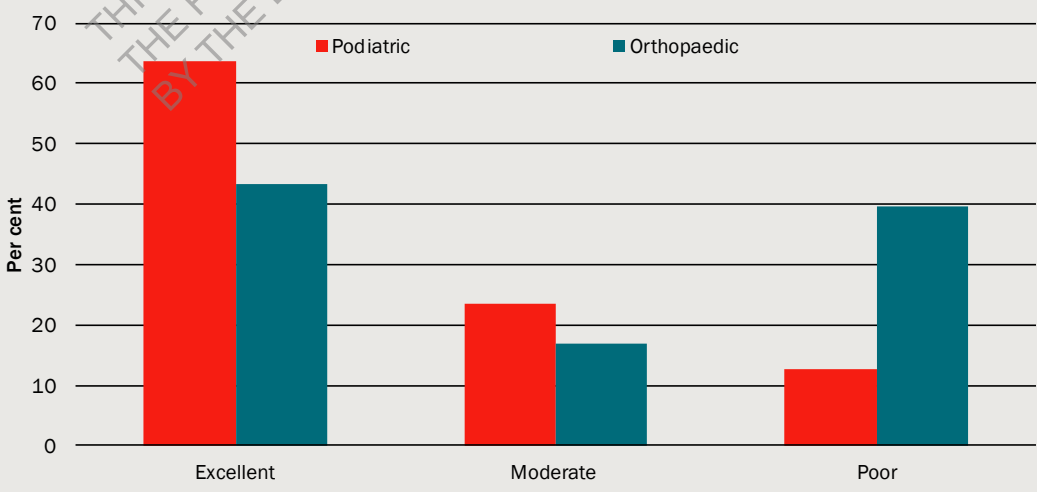
4.4 Integration of Podiatric surgery within an orthopaedic department

A recent UK based study assessed the integration of podiatric surgery within an orthopaedic department. The study compared patient satisfaction in two cohorts; those treated by a podiatric surgeon and those treated by an orthopaedic surgeon. Patient satisfaction was estimated using a likert scale survey instrument. The survey assessed patient experience of the appointment before surgery, quality of the information provided regarding surgery, the initial post-operative period (including satisfaction with pain relief, discharge information, feedback from the surgeon) and whether all issues or questions were resolved following the post-operative out-patient visit.

The survey was provided to 88 podiatric patients who were at least 6 months post-surgery and 88 orthopaedic surgery patients who were at least 11 months post-surgery. Notably, patients who underwent podiatric surgery were treated by the same practitioner, however, those who underwent orthopaedic surgery were treated by different practitioners within the orthopaedic department (mostly consultants).

The types of surgery undertaken were alike between the two groups (for instance, hallux valgus correction, first metatarsophalangeal joint fusion, multiple metatarsal osteotomies and soft tissue mass excision such as Morton's neuroma). Similarly, the survey completion rate was comparable between the two groups (63.6 per cent for podiatric surgery patients and 68.2 per cent for orthopaedic surgery patients). The survey found that patients in the podiatric surgery cohort were significantly more satisfied with their foot surgery than those in the orthopaedic group. That is, 63.7 per cent of podiatric surgery patients rated their level of patient satisfaction as excellent, compared to 43.4 per cent of orthopaedic surgery patients (chart 4.4).

4.5 Patient satisfaction after Podiatric and orthopaedic surgery in the UK



Data source: Armanasco, P., Williamson, D. & Yates, B. 2012, 'Integration of Podiatric surgery within an orthopaedic department: An audit of patient satisfaction with labour force implications', The Foot, vol. 22, no. 3, pp. 200-204.

A MBS item codes related to podiatric surgery

A.1 105 MBS items related to podiatric surgery

MBS item	Clinical category
49837	First metatarsophalangeal
49838	First metatarsophalangeal
49860	First metatarsophalangeal
49821	First metatarsophalangeal
49863	First metatarsophalangeal
49827	First metatarsophalangeal
49839	First metatarsophalangeal
49830	First metatarsophalangeal
49857	First metatarsophalangeal
49824	First metatarsophalangeal
49842	First metatarsophalangeal
49845	First metatarsophalangeal
49833	First metatarsophalangeal
49836	First metatarsophalangeal
44359	Amputations
44338	Amputations
44358	Amputations
44364	Amputations
44342	Amputations
44354	Amputations
44346	Amputations
44350	Amputations
44361	Amputations
49703	Ankle
49709	Ankle
49718	Ankle
49724	Ankle
49727	Ankle
49712	Ankle
49706	Ankle
50312	Ankle
49715	Ankle
49721	Ankle
49700	Ankle

47921	Ankle
47726	Bone graft
49878	Club foot
50339	Ankle
50330	Club foot
50342	Ankle
50327	Club foot
50315	Club foot
50321	Club foot
50324	Club foot
50318	Club foot
104	Consultation item
105	Consultation item
47933	Excision
30107	Excision
49818	Heel
49854	Heel
50102	Joint
50103	Joint
50109	Joint
50127	Joint
49812	Lesser toes
49800	Lesser toes
50345	Lesser toes
49803	Lesser toes
49809	Lesser toes
49851	Lesser toes
49806	Lesser toes
49848	Lesser toes
18272	Local Anaesthetic
30226	Muscle/tendon lengthening or release
47954	Muscle/tendon lengthening or release
47957	Muscle/tendon lengthening or release
39330	Nerve impingement
49866	Nerve impingement
51300	Operation assistant
51303	Operation assistant
48406	Osteotomy
48409	Osteotomy
48403	Osteotomy
48400	Osteotomy
47930	Plate, rod, wire
50118	Rear foot
49815	Rear foot
50336	Ankle
50333	Ankle

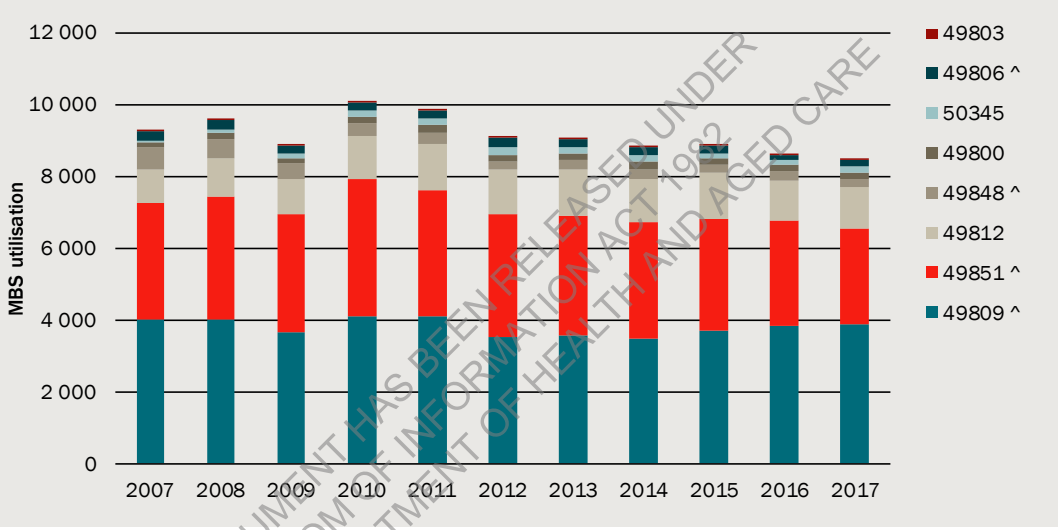
47918	Toenail
47915	Toenail
47904	Toenail
47916	Toenail
47912	Toenail
44136	Toenail
47906	Toenail
47633	Trauma
47663	Trauma
47639	Trauma
47642	Trauma
47636	Trauma
47651	Trauma
47630	Trauma
47666	Trauma
47672	Trauma
47678	Trauma
47657	Trauma
47645	Trauma
47648	Trauma
47654	Trauma
31350	Tumour
30241	Tumour
50203	Tumour
47936	Tumour

Source: CIE

B Changes in MBS utilisation of foot and ankle procedures over time

Lesser toe surgery

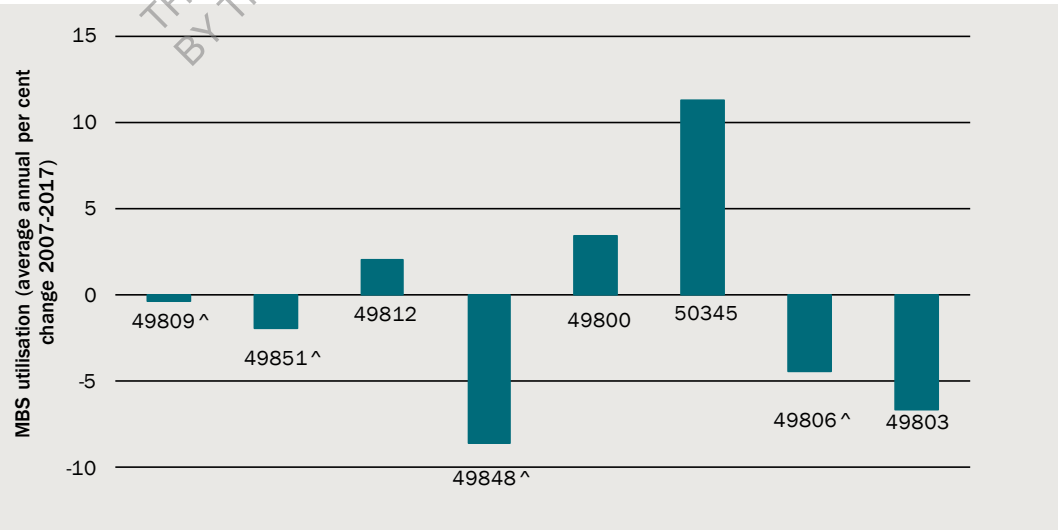
B.1 MBS utilisation for lesser toe surgery



Note: ^ = *in the original 39*

Data source: CIE

B.2 Annual average change in MBS lesser toe surgery 2007-17

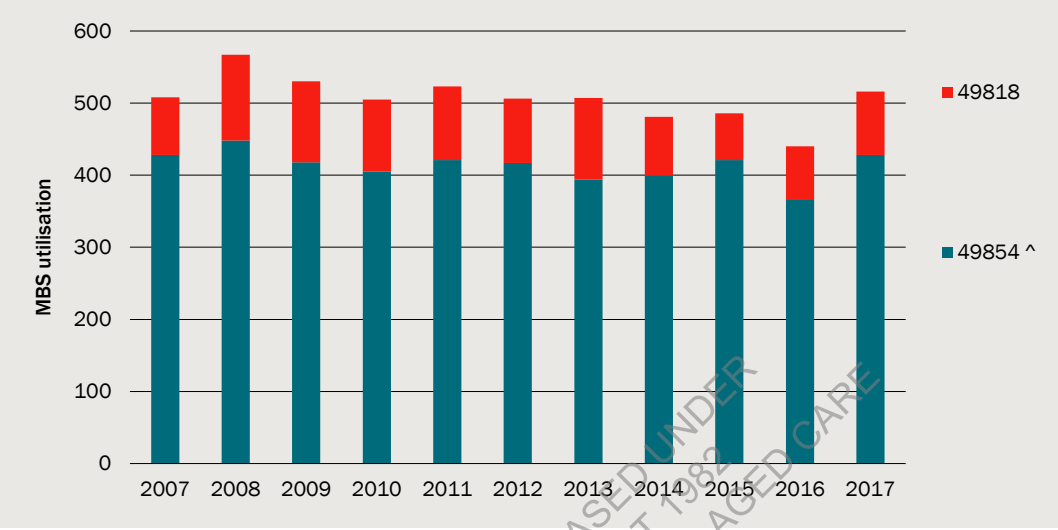


Note: ^ = *in the original 39*

Data source: CIE

Heel surgery

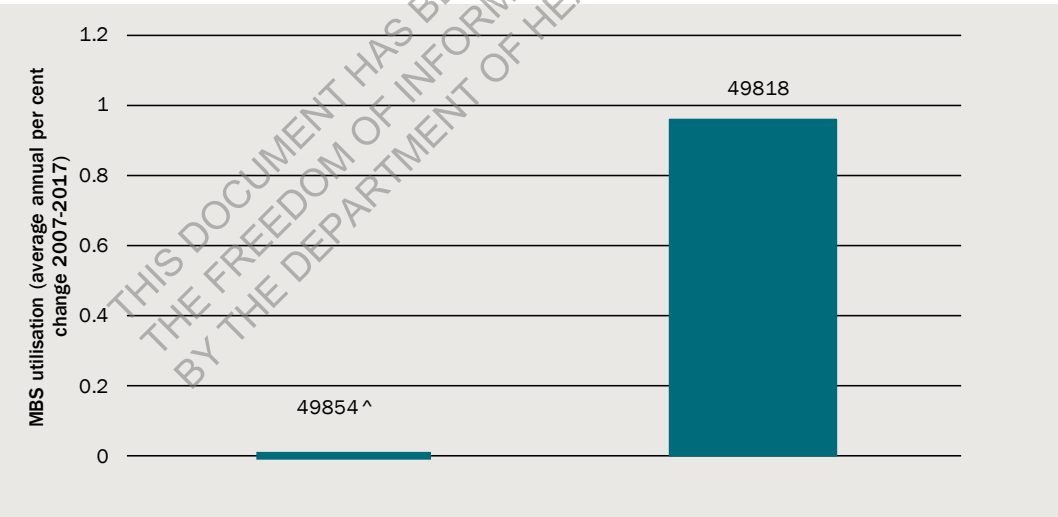
B.3 MBS utilisation for heel surgery



Note: ^ = *in the original 39*

Data source: CIE

B.4 Annual average change in MBS heel surgery 2007-17

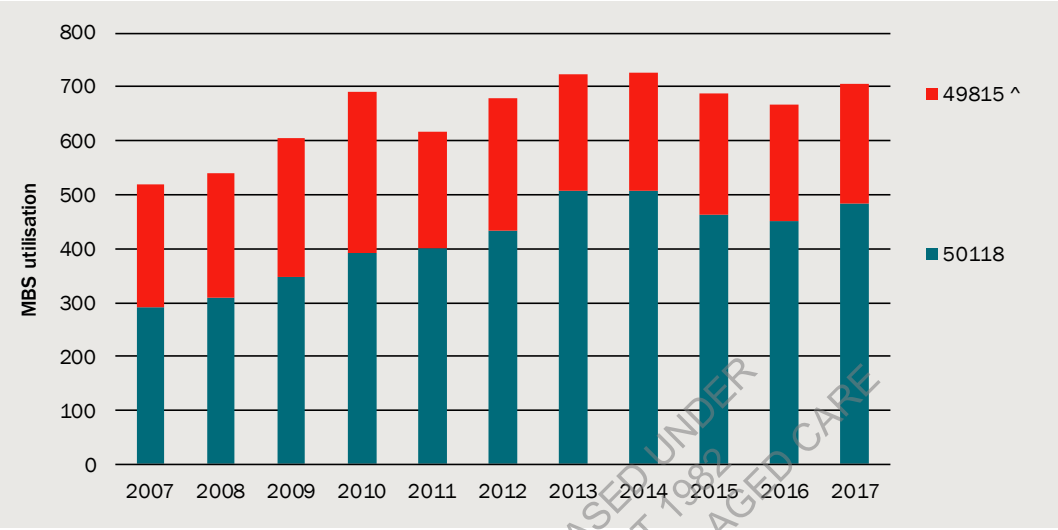


Note: ^ = *in the original 39*

Data source: CIE

Rear foot surgery

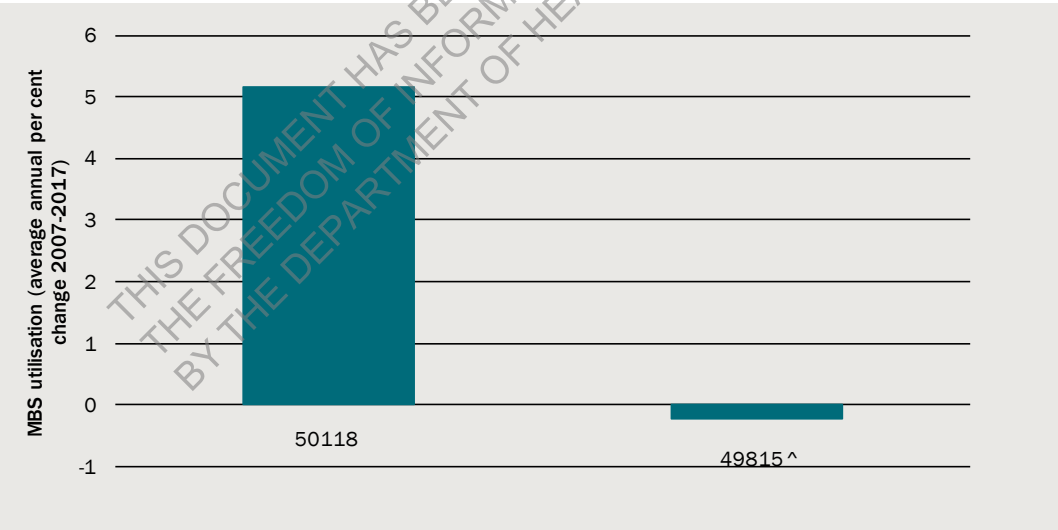
B.5 MBS utilisation for rear foot surgery



Note: ^ = *in the original 39*

Data source: CIE

B.6 Annual average change in MBS rear foot surgery 2007-17

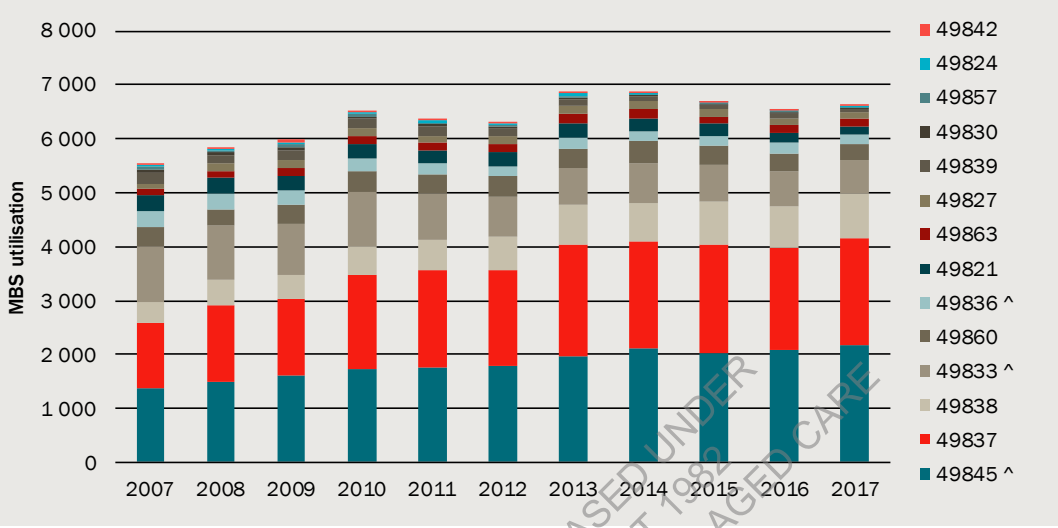


Note: ^ = *in the original 39*

Data source: CIE

1st MPJ surgery

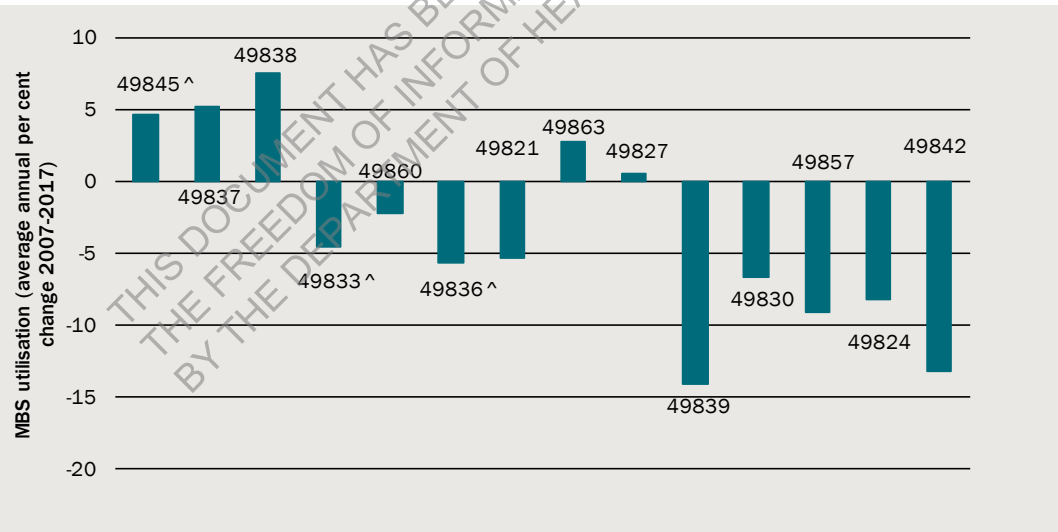
B.7 MBS utilisation for 1st MPJ surgery



Note: ^ = *in the original 39*

Data source: CIE

B.8 Annual average change in MBS 1st MPJ surgery 2007-17

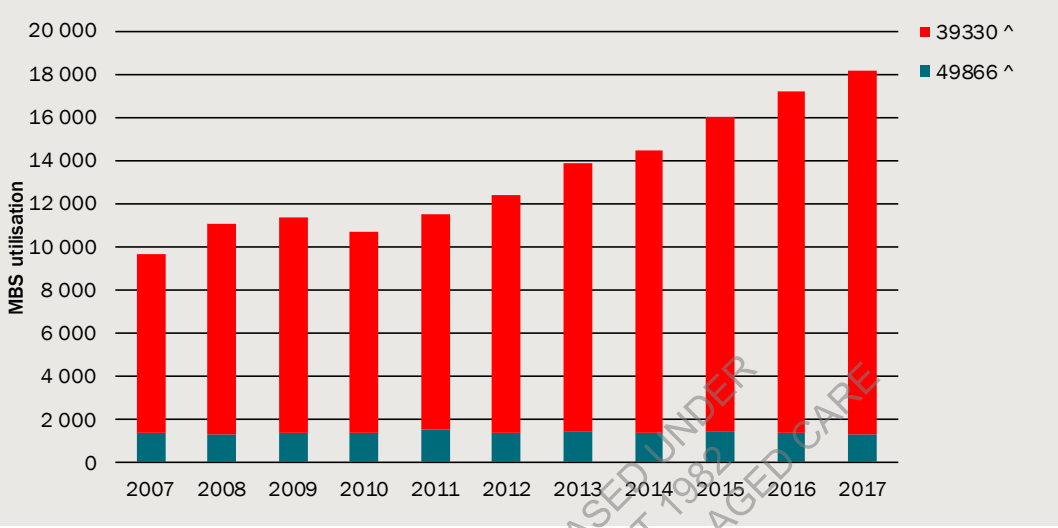


Note: ^ = *in the original 39*

Data source: CIE

Nerve impingement surgery

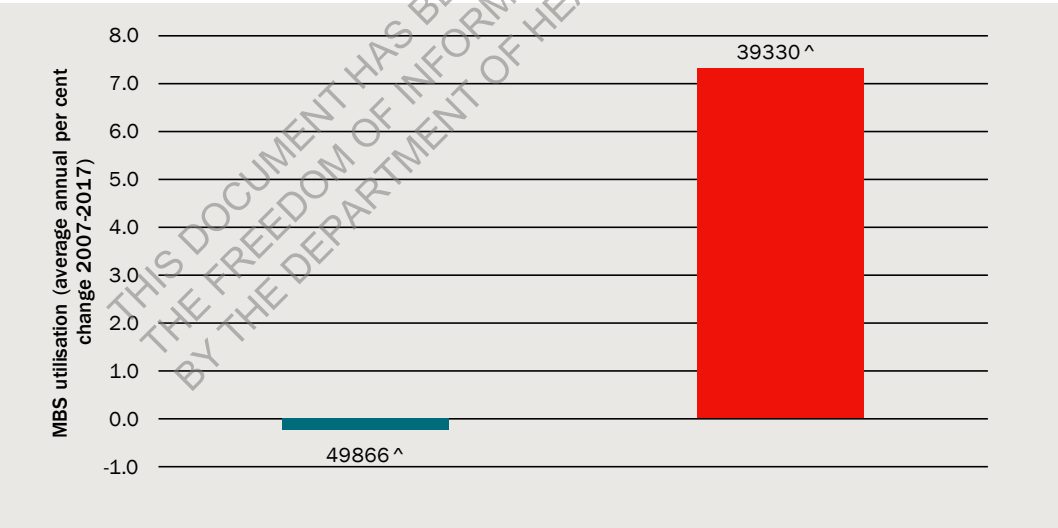
B.9 MBS utilisation for nerve impingement surgery



Note: ^ = *in the original 39*

Data source: CIE

B.10 Annual average change in MBS nerve impingement surgery 2007-17

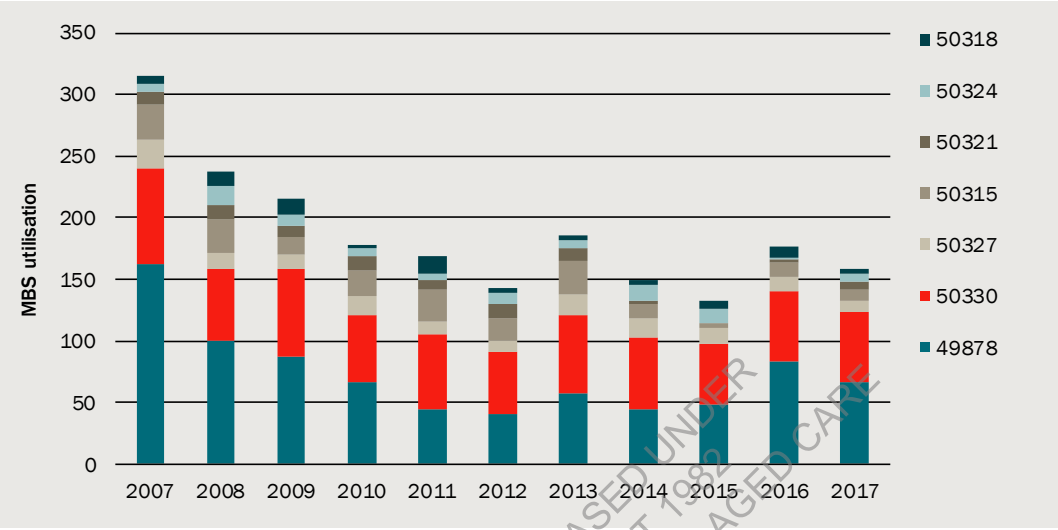


Note: ^ = *in the original 39*

Data source: CIE

Club foot surgery

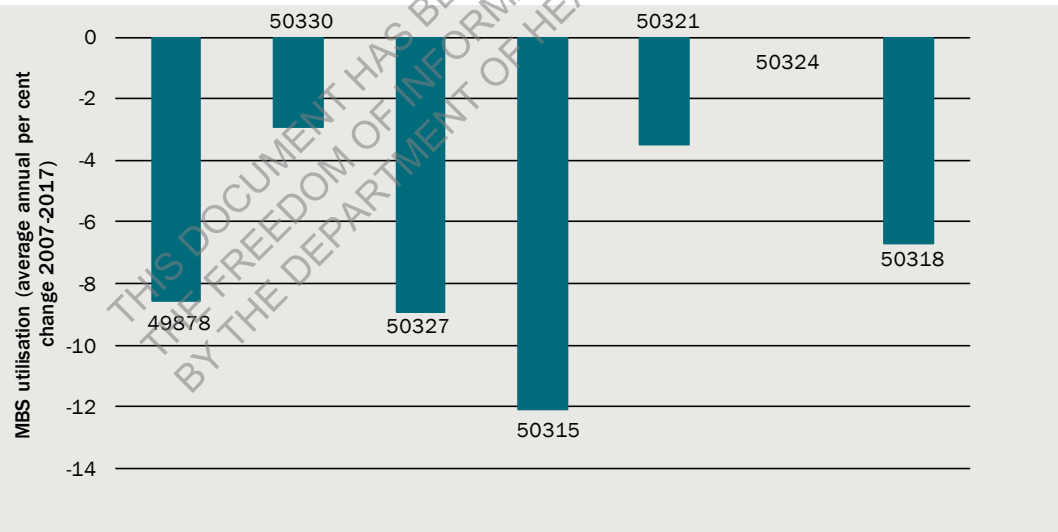
B.11 MBS utilisation for club foot surgery



Note: ^ = *in the original 39*

Data source: CIE

B.12 Annual average change in MBS club foot surgery 2007-17

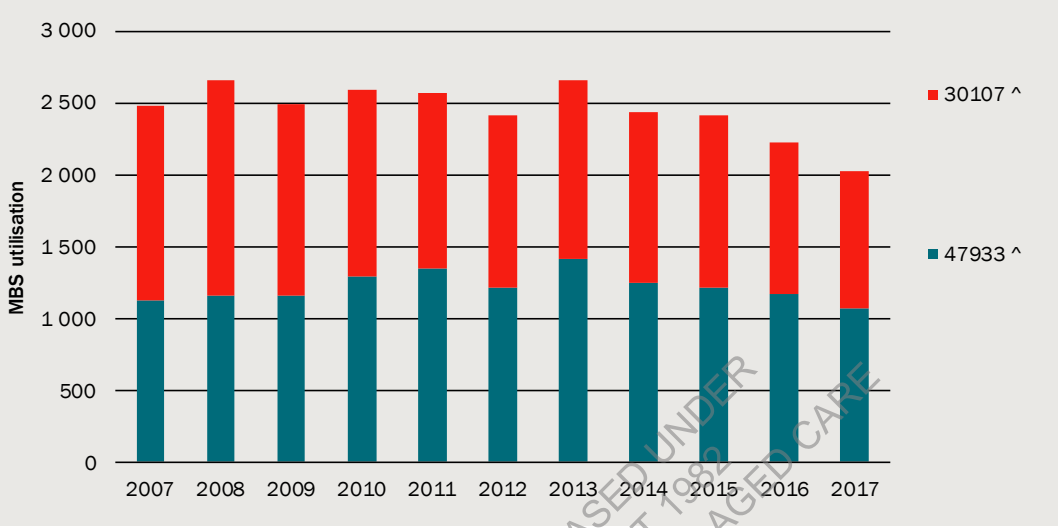


Note: ^ = *in the original 39*

Data source: CIE

Excision

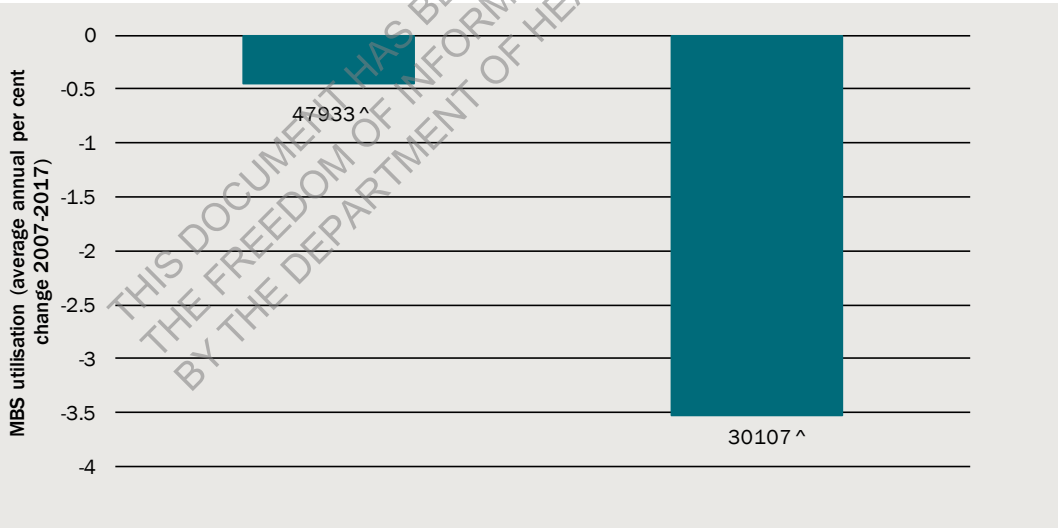
B.13 MBS utilisation for excision surgery



Note: ^ = *in the original 39*

Data source: CIE

B.14 Annual average change in MBS excision surgery 2007-17

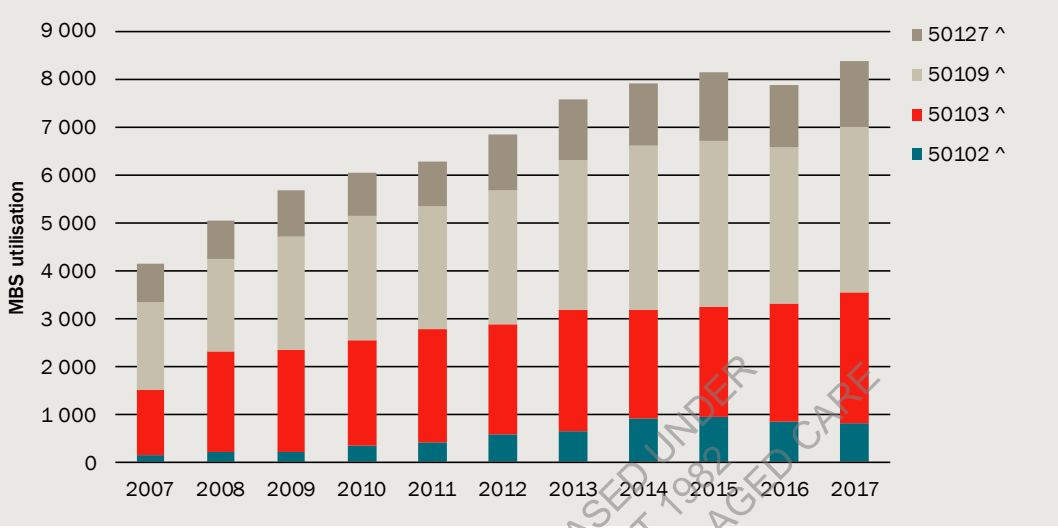


Note: ^ = *in the original 39*

Data source: CIE

Joint surgery

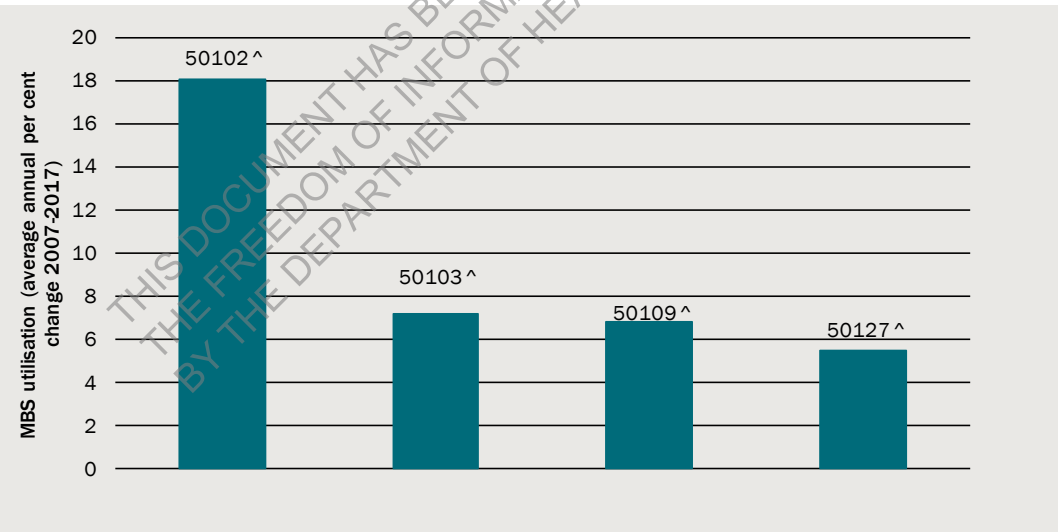
B.15 MBS utilisation for joint surgery



Note: ^ = *in the original 39*

Data source: CIE

B.16 Annual average change in MBS joint surgery 2007-17

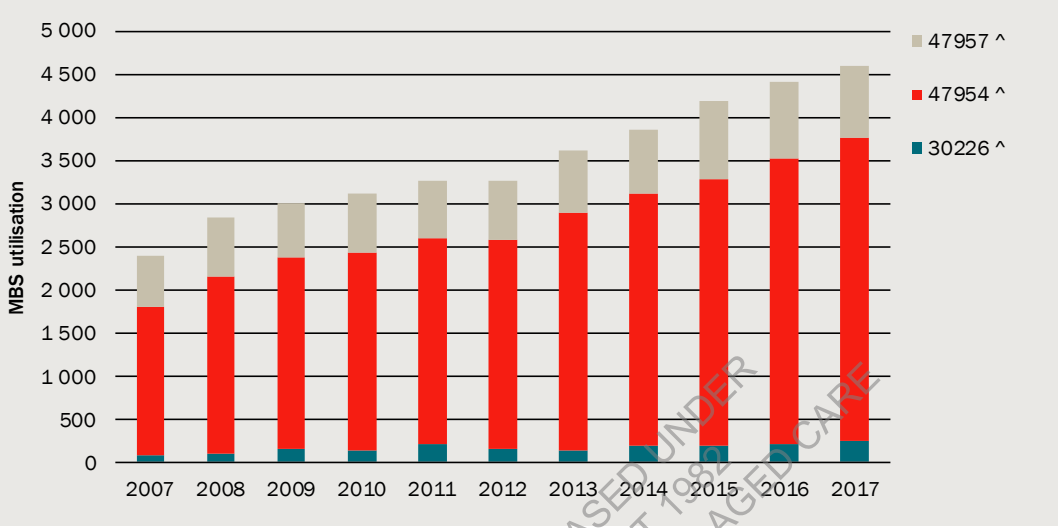


Note: ^ = *in the original 39*

Data source: CIE

Muscle and tendon surgery

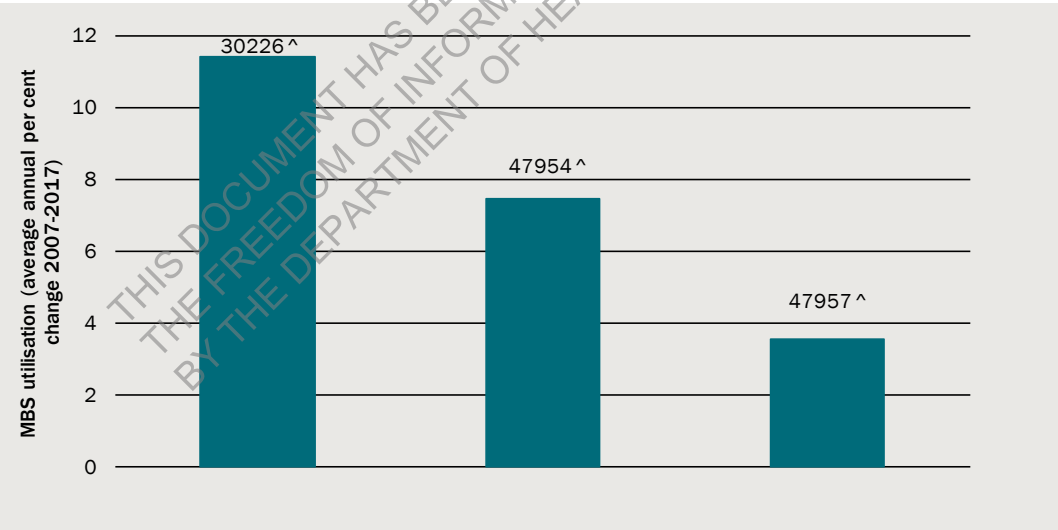
B.17 MBS utilisation for muscles and tendons surgery



Note: ^ = *in the original 39*

Data source: CIE

B.18 Annual average change in MBS muscle and tendon surgery 2007-17

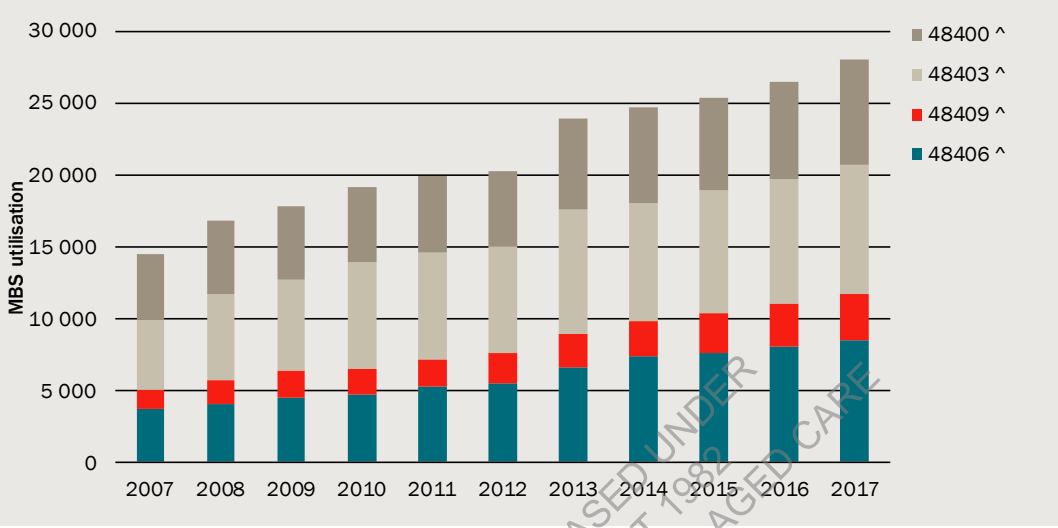


Note: ^ = *in the original 39*

Data source: CIE

Osteotomy

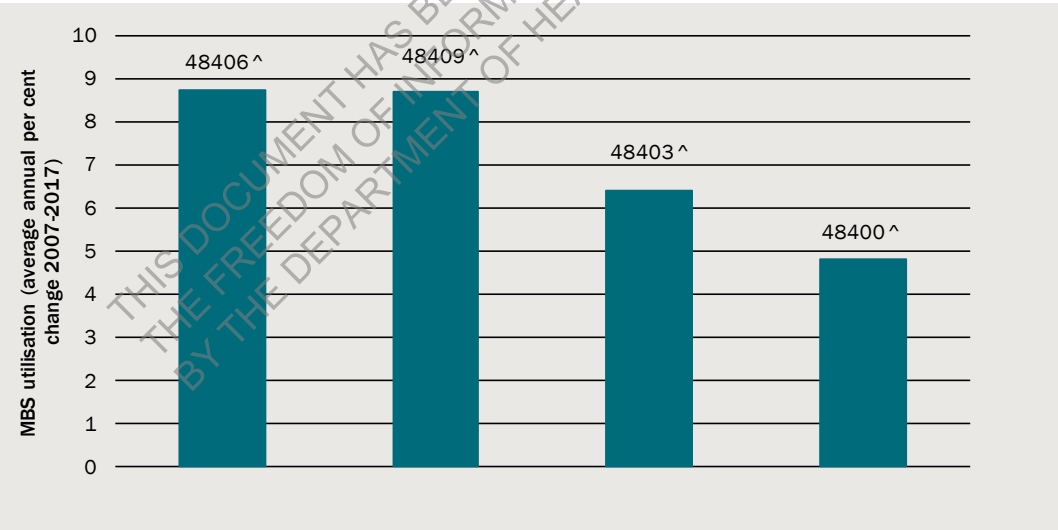
B.19 MBS utilisation for osteotomy surgery



Note: ^ = *in the original 39*

Data source: CIE

B.20 Annual average change in MBS osteotomy surgery 2007-17

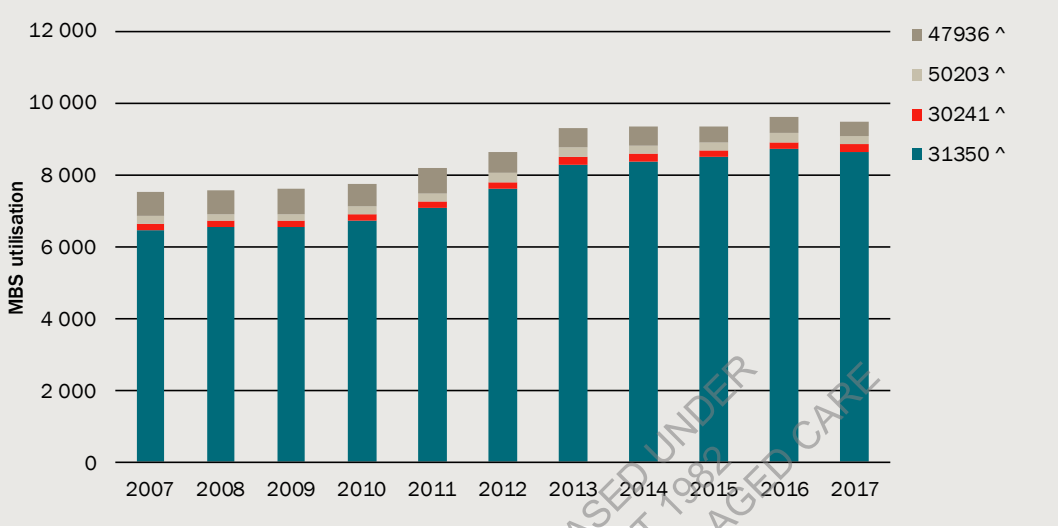


Note: ^ = *in the original 39*

Data source: CIE

Tumour surgery

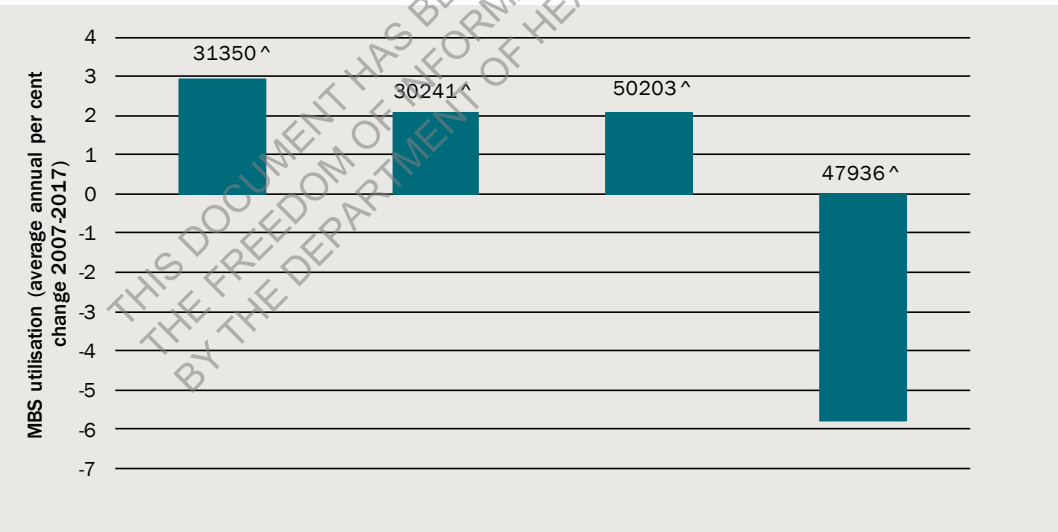
B.21 MBS utilisation for tumour surgery



Note: ^ = *in the original 39*

Data source: CIE

B.22 Annual average change in MBS tumour surgery 2007-17

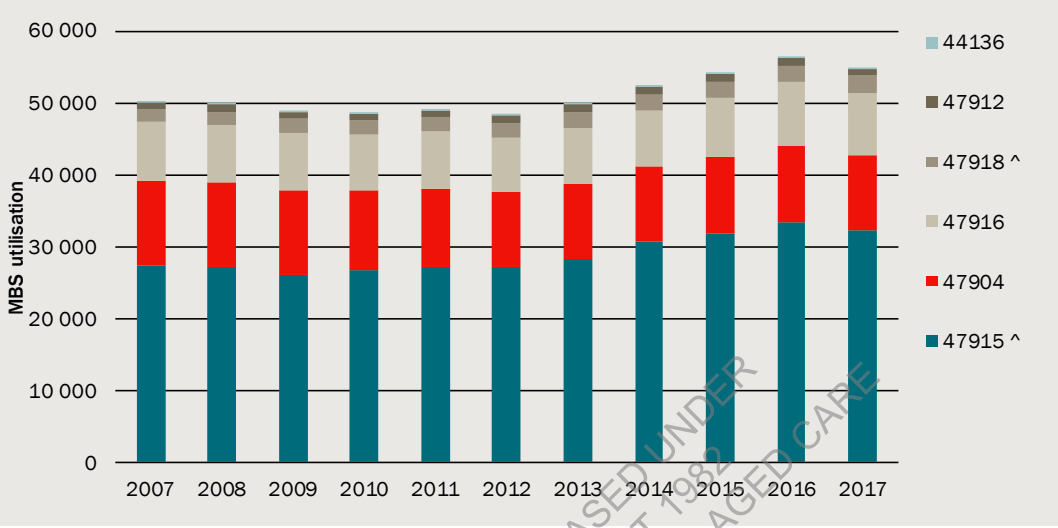


Note: ^ = *in the original 39*

Data source: CIE

Toenail surgery

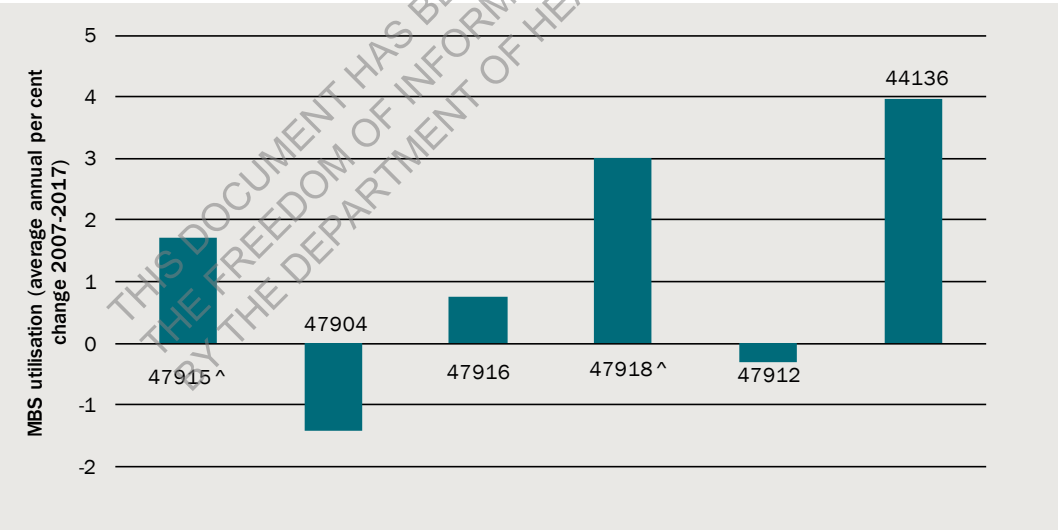
B.23 MBS utilisation for toenail surgery



Note: ^ = *in the original 39*

Data source: CIE

B.24 Annual average change in MBS toenail surgery 2007-17

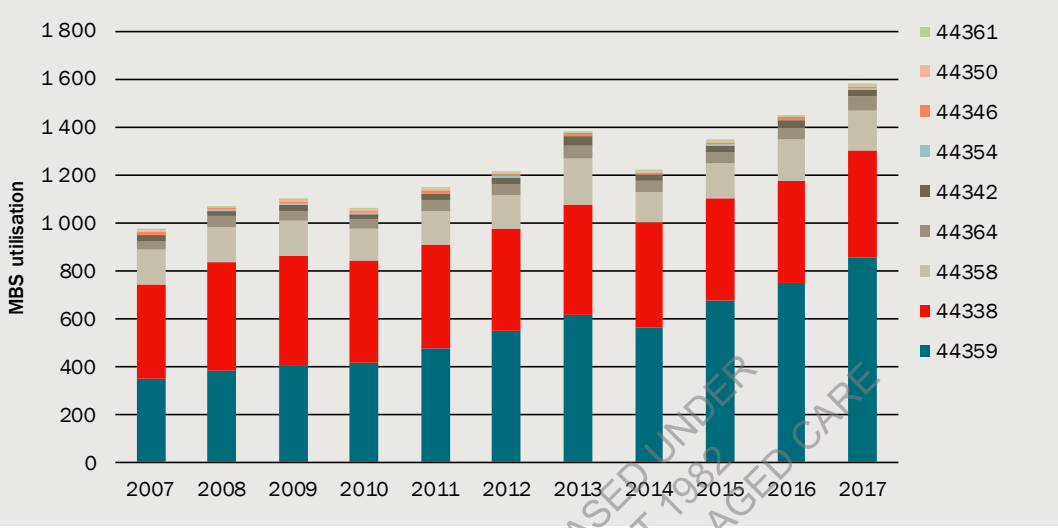


Note: ^ = *in the original 39*

Data source: CIE

Amputation

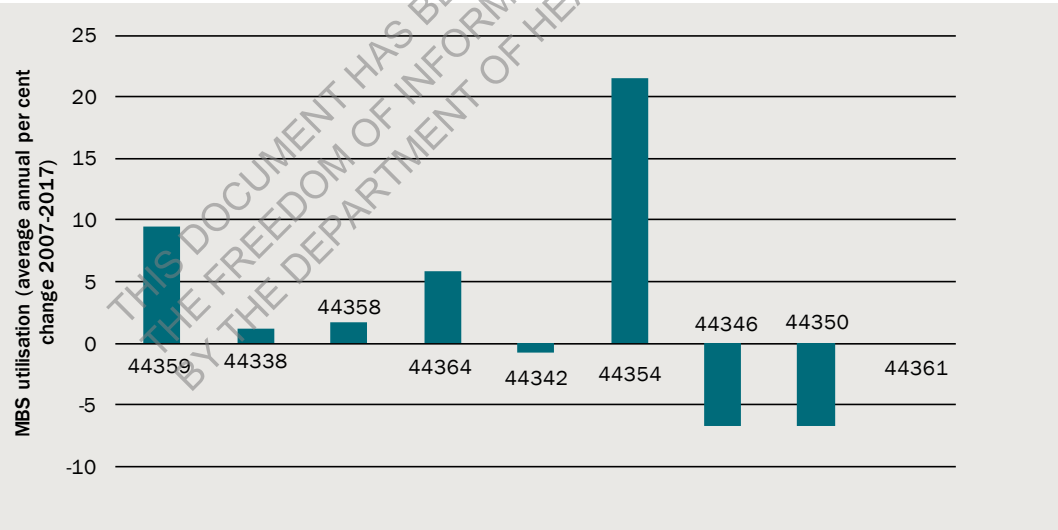
B.25 MBS utilisation for amputation surgery



Note: ^ = *in the original 39*

Data source: CIE

B.26 Annual average change in MBS amputation surgery 2007-17

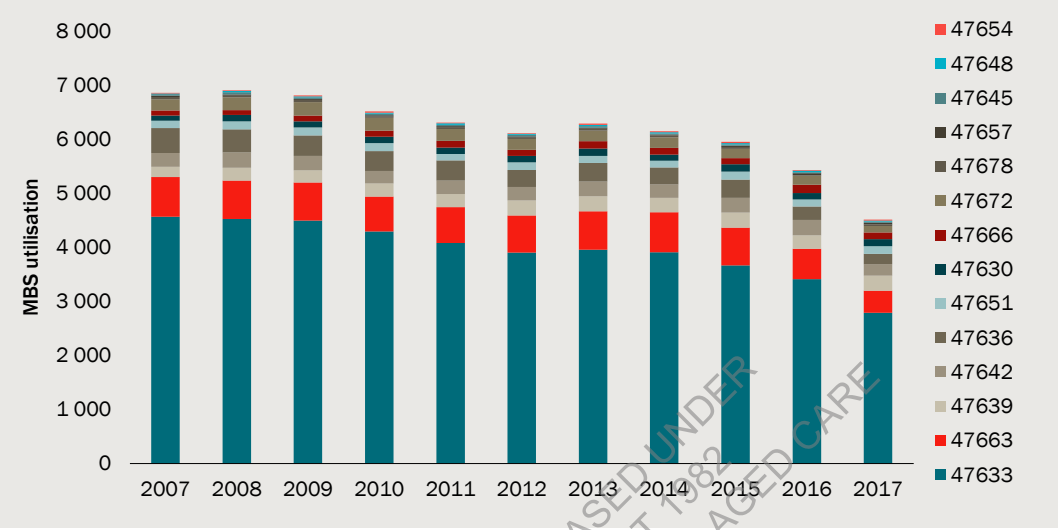


Note: ^ = *in the original 39*

Data source: CIE

Trauma surgery

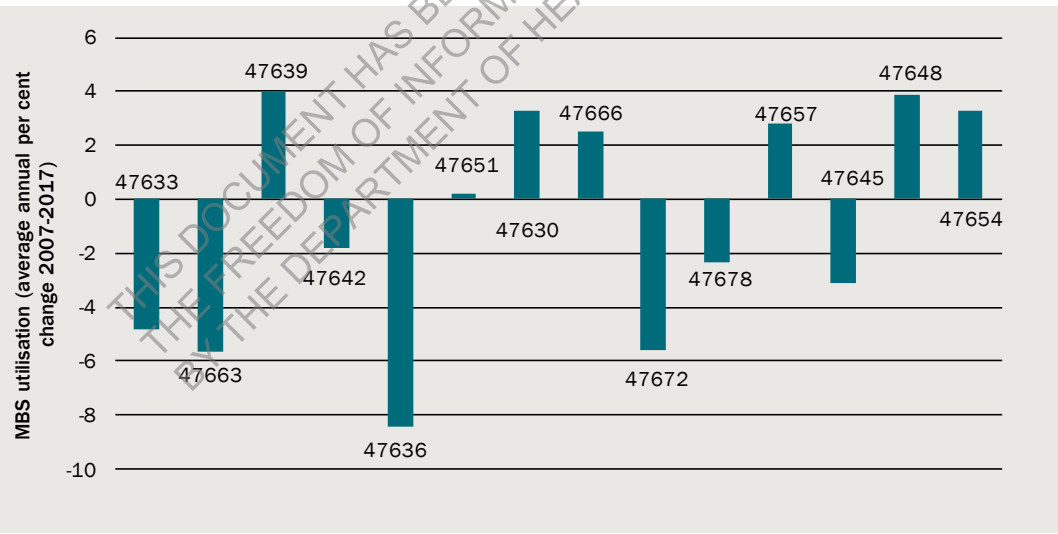
B.27 MBS utilisation for trauma surgery



Note: ^ = *in the original 39*

Data source: CIE

B.28 Annual average change in MBS trauma surgery 2007-17

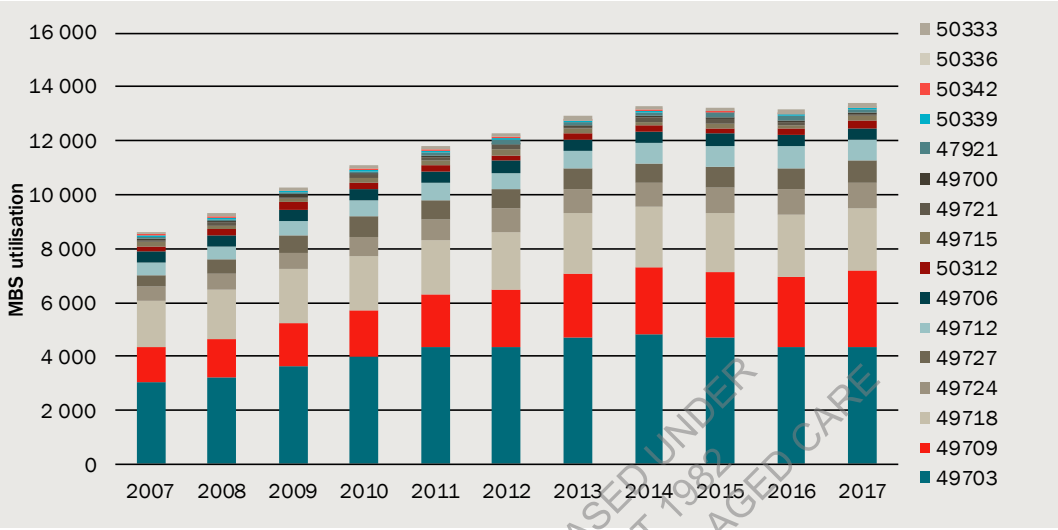


Note: ^ = *in the original 39*

Data source: CIE

Ankle surgery

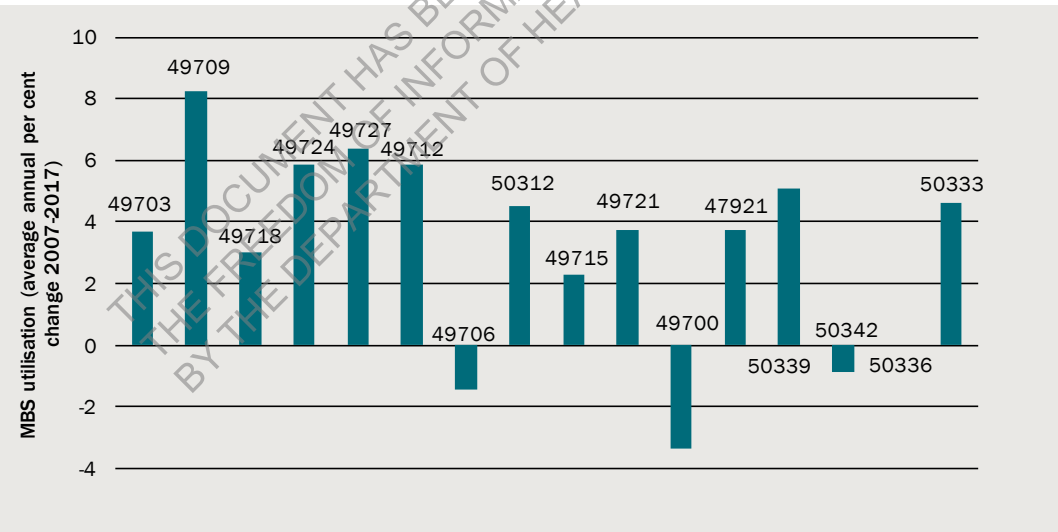
B.29 MBS utilisation for ankle surgery



Note: ^ = *in the original 39*

Data source: CIE

B.30 Annual average change in MBS ankle surgery 2007-17



Note: ^ = *in the original 39*

Data source: CIE

C Costs to patients of accessing the MBS for surgery

C.1 Comparing patient out of pocket costs without and with access to the MBS for podiatric surgery

MBS item number and patient type	Without MBS access	With MBS access	Amount covered by MBS	Patient out of pocket savings
	$	$	$	Per cent
s47G				

s47G

s47G

C.2 Concordance of MBS items with Private Health Insurance Billing Codes

MBS item	F code
48400	F712/715/716/725/731/736/742
47915	F474
49848	F739
49833	F782
49851	F856
49866	F702
48403	F782 to 786
49836 [a]	F776/692/793/782/783/687/689/715/755)
49806	F678
49845	F852
49809	F687/755
47933 [a]	F715
48406	F713/720/721/733
47918	F475/547
50127	F860
50103	F689
47921	F793
49854 [a]	F699/698
30107	F704
47916	F546
49821	F742
47927	F794
30186 [a]	F541/445
50106	F692/694
47960 [a]	F757/678

[a] Not reported in the 2010 Podiatric Surgery Billing Codes, based on costing data provided by ACPS (sample of 9 surgeons)

Source: CIE analysis of December 2010 Podiatric Surgery Billing Codes provided by ACPS

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