Hospital Priorities 2022

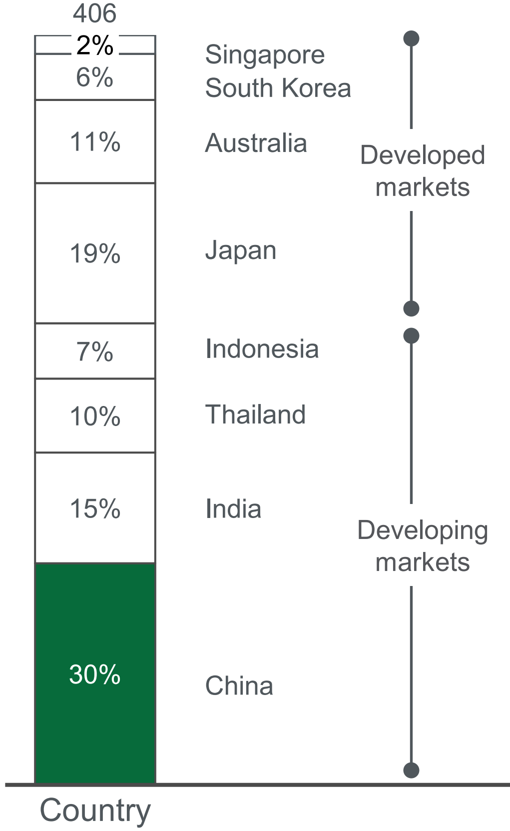
China Edition: Strategic Implications for Medtech Companies

June 2022

L.E.K. sponsors a unique analysis of hospital priorities in APAC; the 2022 study engaged 120 hospital executives in China across public and private providers

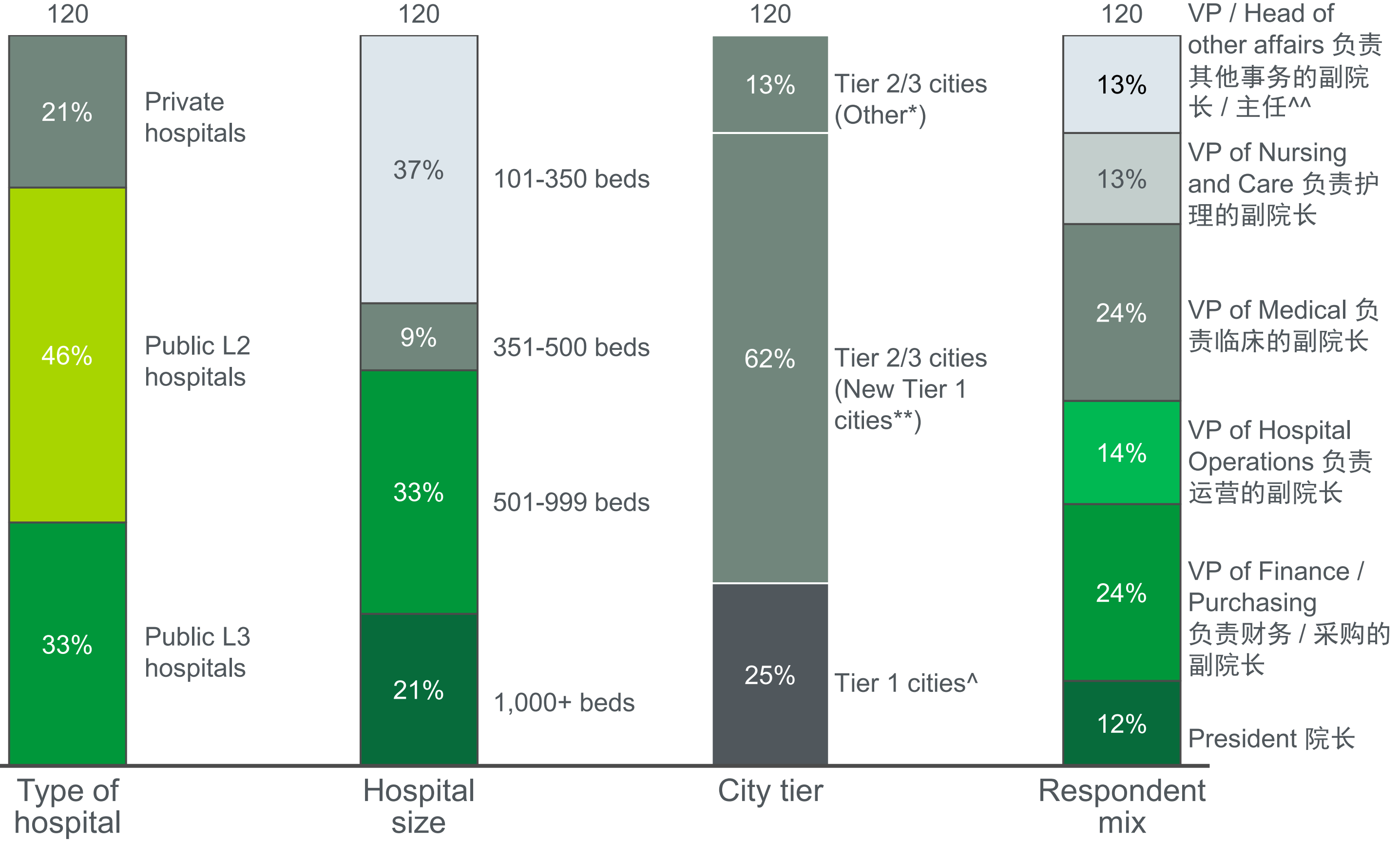
L.E.K. APAC Hospital Priorities Survey respondent mix

Percentage of respondents



China respondent mix

Percentage of respondents

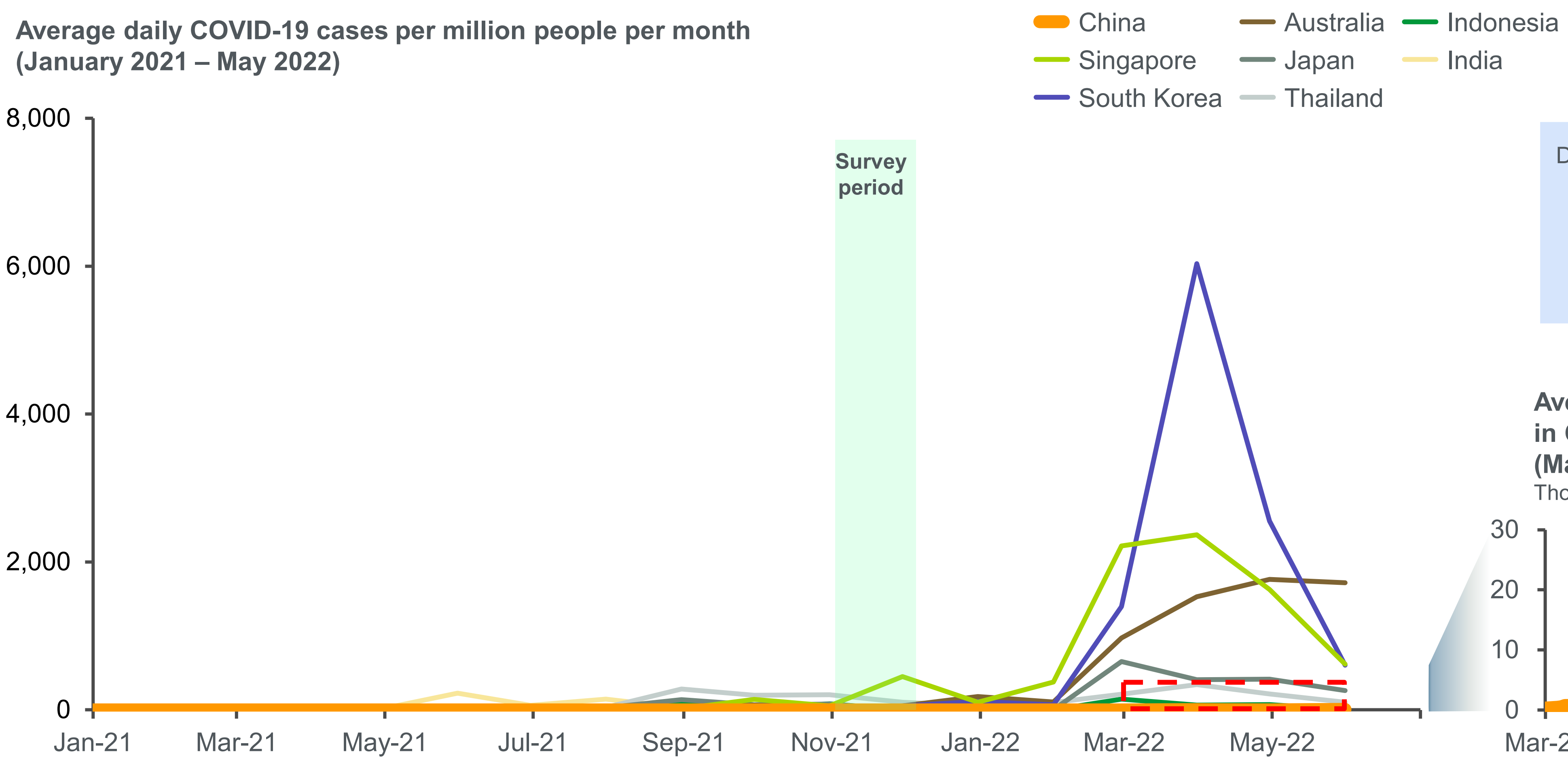


Note: *Dalian, Zhangzhou, Baoding, Hefei, Kunming; **Wuhan, Chengdu, Hangzhou, Nanjing, Changsha, Tianjin, Chongqing, Zhengzhou, Shenyang, Xi'an; ^Beijing, Shanghai, Guangzhou; ^^Head of Pharmacy / Head of Equipment 药剂科主任 / 设备科主任, and VP of Other Affairs 负责其他事务的副院长

Source: L.E.K. 2022 APAC Hospital Priorities Survey conducted in November-December 2021

The survey fieldwork was conducted in November 2021, which was a temporary lull in COVID-19 for healthcare systems

Average daily COVID-19 cases per million people per month (January 2021 – May 2022)



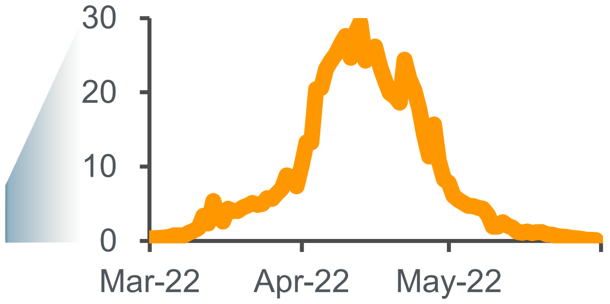
Global Delta wave

Global Omicron wave

Despite the high number of cases, incidence at the national level is low. Key consequence are logistics disruptions due to lockdown rather than significant load on the healthcare system

Average daily COVID-19 cases in China (Mar 2022 – May 2022)

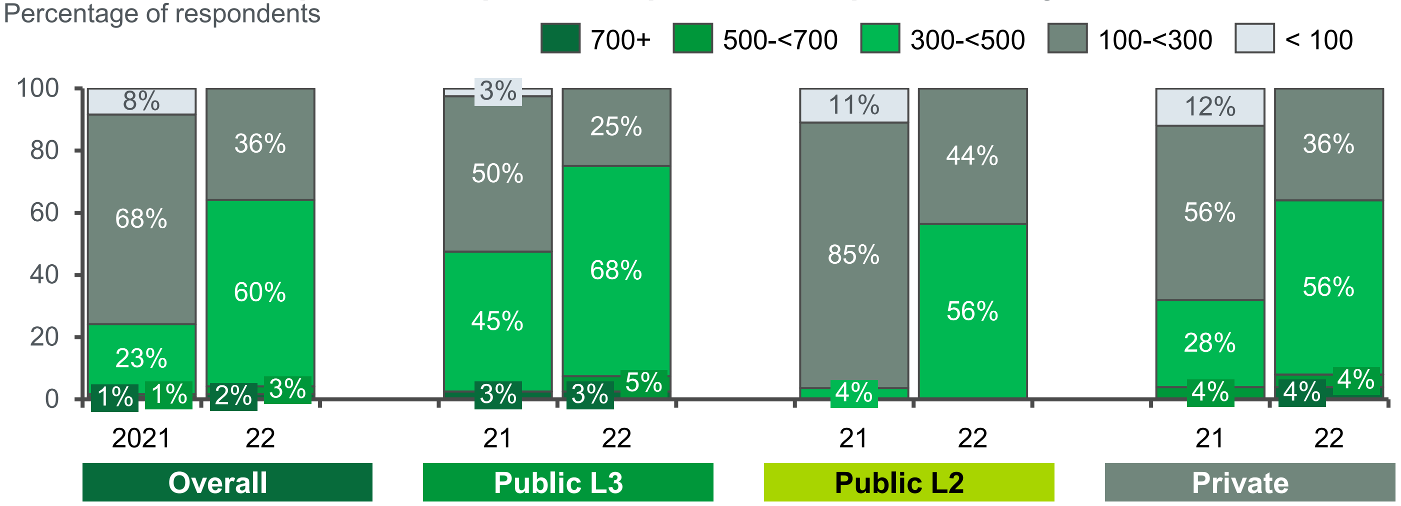
Thousand cases



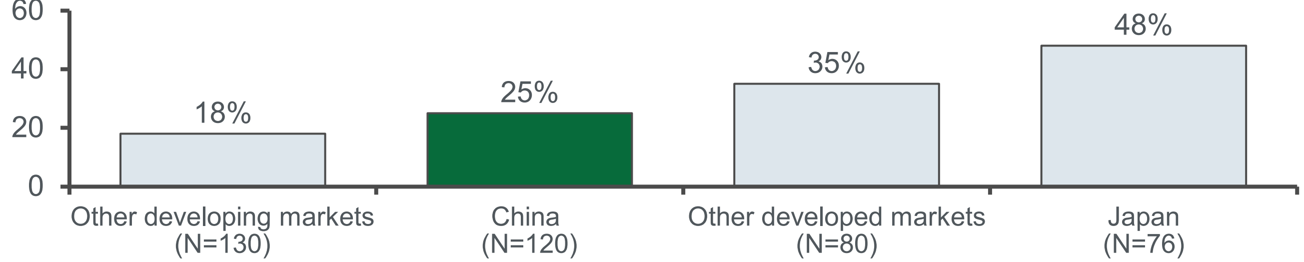
Note: Data representation as of May 31, 2022
Source: Our World in Data; L.E.K. analysis

Using elective surgery volume as an indicator, operations across hospitals demonstrate considerable rebound from 2021

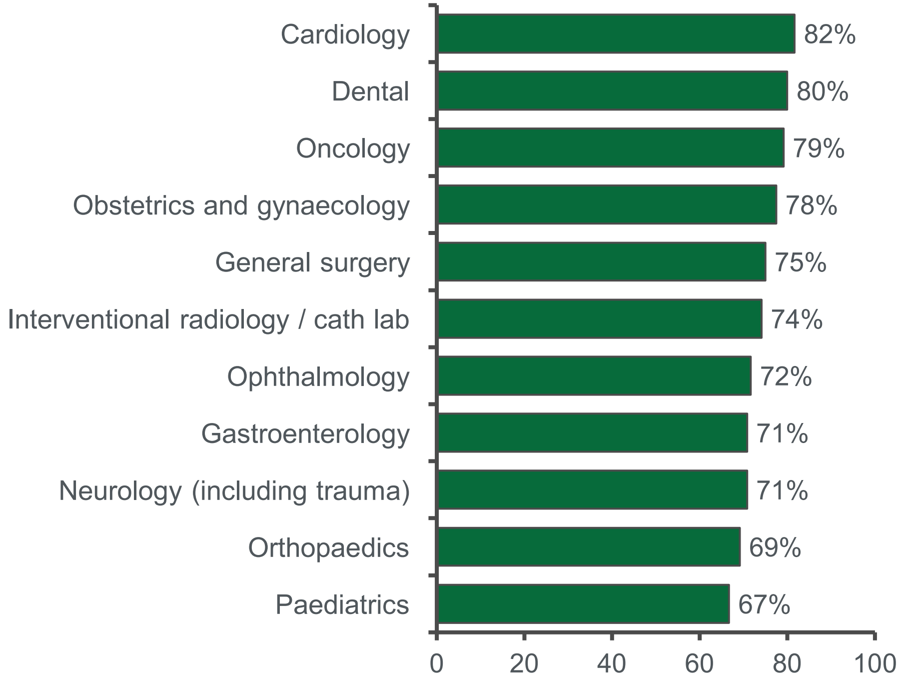
Number of elective procedures per month performed/expected each year - China*
Percentage of respondents



Elective procedure volume comparison by country (2021)*
Percentage of respondents with 300+ procedures / month



Departments recovered to pre-COVID-19 levels of operations in terms of number of elective procedures – China**
Percentage of respondents



Note: *Question: How many elective surgeries did your hospital perform/do you expect your hospital to perform over the following time period (monthly figures)? 您所在的医院在以下的时间段里进行了/将要进行多少次择期手术(每月)? Other developed markets include South Korea, Australia and Singapore. Other developing markets include India, Indonesia and Thailand; **Question: Which departments are still below pre-COVID levels in terms of number of elective procedures performed? 以下哪些科室的择期手术量尚未恢复到COVID之前的水平?

Source: L.E.K. 2021, 2022 APAC Hospital Priorities Survey

We explore four key themes: customer priorities and preferences, VBP and DRG, localization, digitalization and innovation

Customer priorities and preferences

Across most hospitals, improving quality of care is among top priorities; investing in digital capabilities is rising quickly on the agenda

VBP and DRG

Volume Based Procurement (VBP) tenders will continue to roll out in medtech; implementation of case-based payment is expected to further increase

Localization

Market access is increasingly challenging for import-only medtechs as restriction on the use of imported medtech products increases

Digitalization and innovation

Most hospitals are currently adopting, trialling or interested in exploring various digital solutions to increase patient satisfaction and enhance patient care

Note: Also includes survey findings on hospital financial outlook in appendix
Source: L.E.K. 2022 APAC Hospital Priorities Survey; L.E.K. analysis

LEK™

Key findings of 2022 hospital survey and implications to medtechs in China

Key findings	Implications to medtech
• ~80% hospitals in China view improving clinical outcome as the top strategic priority • ~55% of hospitals expect to increase spending in physician support system as a way to improve clinical outcome	• How do we optimize our product and services to meet hospitals' needs of enhancing quality of care?
• ~80% of hospitals expect national and regional VBP tenders to continue to roll out in medtech • ~95% of hospitals have already implemented or are currently testing DRG; the proportion of hospitals that expect DRG usage to increase doubles as compared to 2021	• Do we have the diversity and differentiation in our product portfolio to compete and win in VBP? • How do we optimize operation and re-configure our channel setup to deliver a lower COGS / cost-to-serve option to thrive through VBP/DRG-enhanced price pressure?
• ~30% of hospitals in China now require the use of domestically manufactured products "where possible" after Order 551 issuance, 10X from a 2021 view	• Is localization required to succeed for my portfolio? • How do we accelerate the development of capabilities beyond commercialization in China to tackle market access challenges?
• ~40% of hospitals in China are using digital solutions in telemedicine and clinical decision support system, ~10% higher than the adoption rate in APAC	• How can we best deliver new digital capabilities to maximize our competitiveness? • Are we taking advantage of the development in China's digital ecosystem to expand our commercial footprint and operations?

Source: L.E.K. 2022 APAC Hospital Priorities Survey; L.E.K. analysis

Hospital strategic priorities have shifted toward improving quality of care; investing in digital capability is rising quickly on the agenda

1 Customer priorities and preferences

Strategic priorities over the next 3 years*

Percentage of respondents that chose "6" and "7" ("1" – not at all important, "7" – very important)

Pandemic response | Care enhancement | Operational enhancement | Top 2 rank

Rank (2022)	Strategic priorities	Overall 2022 (N=120)	Overall Rank change (from 2021)	Public L3 2022 (N=40)	Public L3 Rank change (from 2021)	Public L2 2022 (N=55)	Public L2 Rank change (from 2021)	Private 2022 (N=25)	Private Rank change (from 2021)
#1	Improving clinical outcomes	**76%**	+1	70%	+1	**76%**	+2	**84%**	-
#2	Standardization of clinical care protocol within and across hospitals	**72%**	+7	**78%**	+2	69%	+5	72%	+2
#3	Improving healthcare worker safety	70%	+4	**75%**	+2	65%	+5	72%	-
#4	Investing in digital health capabilities (e.g. telehealth, AI-assisted image analysis)	66%	+6	68%	+5	62%	+5	72%	-7
#5	Investing in new IT systems	66%	-4	65%	-5	**71%**	-1	56%	+5
#6	Reducing acquisition costs of capital equipment	63%	-	70%	+1	58%	-5	64%	-3
#7	Reducing costs of medical supplies	63%	-4	65%	-4	60%	-4	64%	-
#8	Improving labour efficiency/workflow optimization	58%	-3	58%	-	58%	-7	60%	+2
#9	Recovering from financial impact of COVID-19 (e.g. hospitals unable to open due to high infection rate)	58%	-2	53%	-	62%	-2	60%	+2
#10	Working with other sites of alternative care (e.g. primary care center)	58%	-6	45%	-3	58%	-5	**76%**	-2

Note: *Survey question: How important are the following strategic priorities for your hospital over the next 3 years? 在未来3年内、以下战略议题对于您所在医院的重要程度如何? (Please rate the importance of each strategic priority on a scale of 1 to 7, where "1" means not at all important and "7" means very important); Only top 10 rankings in 2022 are shown here

Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Surveys

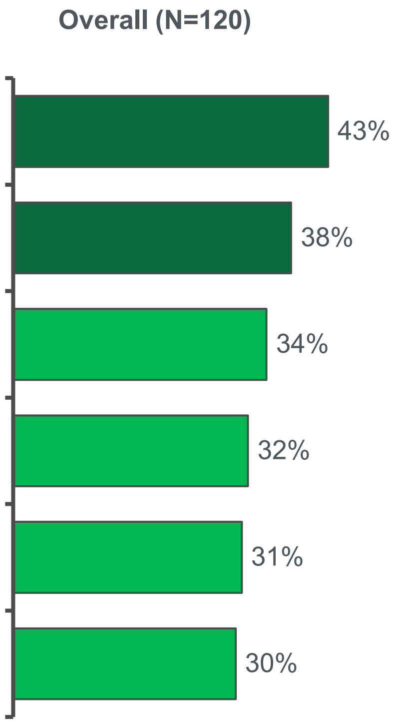
Dental and radiotherapy are some of the key specialties hospitals are focusing on for current expansion, along with the interventional radiology, geriatrics and diagnostic imaging of the prior years

1 Customer priorities and preferences

Top 6 specialties hospitals in China are looking to expand*

Percentage of respondents that selected “Expand offering” in the next 3 years

Top 2 rank



Rank (2022)	Specialty	Overall 2022 (N=120)	Overall PPT change (from 2021)	Public L3 2022 (N=40)	Public L3 PPT change (from 2021)	Public L2 2022 (N=55)	Public L2 PPT change (from 2021)	Private 2022 (N=25)	Private PPT change (from 2021)
#1	Dental	43%	30%	50%	35%	36%	23%	44%	36%
#2	Radiotherapy	38%	19%	35%	20%	35%	15%	48%	28%
#3	Interventional radiology / cath lab	34%	10%	43%	18%	33%	7%	24%	3%
#4	Geriatrics	32%	12%	33%	10%	31%	9%	32%	20%
#5	Diagnostic imaging	31%	13%	35%	15%	35%	18%	16%	0%
#6	Cardiology	30%	4%	40%	14%	18%	(9%)	40%	16%

Note: *Survey question: Which clinical specialty is being offered in your hospital, what are the expected changes in offering in the next three years? 您所在医院中以下每个临床专科的开设情况如何, 未来三年的预期变化是什么？ Options provided were cardiology, interventional radiology, neurology, obstetrics, orthopaedics, oncology, radiotherapy, paediatrics, diagnostic imaging, ophthalmology, general surgery, gastroenterology, nephrology, dental, and geriatrics; Only top 6 rankings in 2022 are shown here

Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Surveys

Majority of hospitals are looking to invest in physician support systems; priority of spending on medical consumables has reduced in public hospitals

1 **Customer priorities and preferences**

Spending priorities over the next 3 years*
Percentage of respondents that chose “6” and “7” (“1” – will definitely reduce spending, “7” – will definitely increase spending)

Top 2 rank

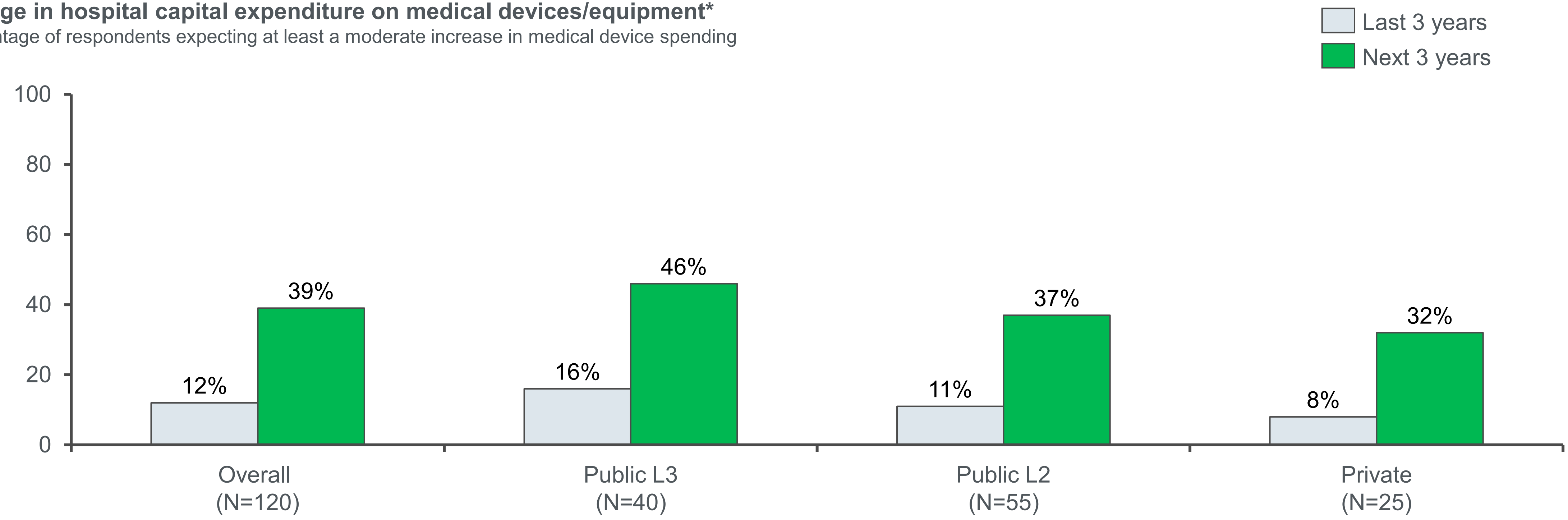
Spending priorities	Overall: 2022 (N=120)	Overall: Change from 2021 (ppt)	Public L3: 2022 (N=40)	Public L3: Change from 2021 (ppt)	Public L2: 2022 (N=55)	Public L2: Change from 2021 (ppt)	Private: 2022 (N=25)	Private: Change from 2021 (ppt)
Physician support systems (e.g., clinical decision support, medication management, etc.)	**54%**	N/A**	**50%**	N/A**	**55%**	N/A**	60%	N/A**
Expansion / improvement of existing facilities^	**53%**	-5	**48%**	-14	51%	+2	**64%**	-4
Backend IT systems	52%	+6	45%	-9	51%	+9	**64%**	+24
Innovative drugs and therapies	51%	+7	43%	-20	51%	+18	**64%**	+24
Diagnostic imaging equipment	49%	+1	**48%**	+3	49%	+4	52%	-8
Non-therapeutic appliances	48%	+5	38%	-	**58%**	+10	44%	-
Patient-facing digital solutions	48%	+3	**48%**	+13	47%	-2	48%	-
Medical consumables	45%	-7	43%	-20	45%	-7	48%	+16

Note: *Survey question: How do you expect your hospital’s spending priorities on the following categories to change over the next 3 years? 未来3年内、您预计您所在医院在以下支出类别中优先度会如何变化;
**Not listed as an option in 2021; ^Listed as 'New and / or existing facilities' in 2021
Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Survey

Capital expenditure on medical device / equipment is expected to increase over the next three years; 3X+ from a historical view

1 Customer priorities and preferences

Change in hospital capital expenditure on medical devices/equipment*
Percentage of respondents expecting at least a moderate increase in medical device spending



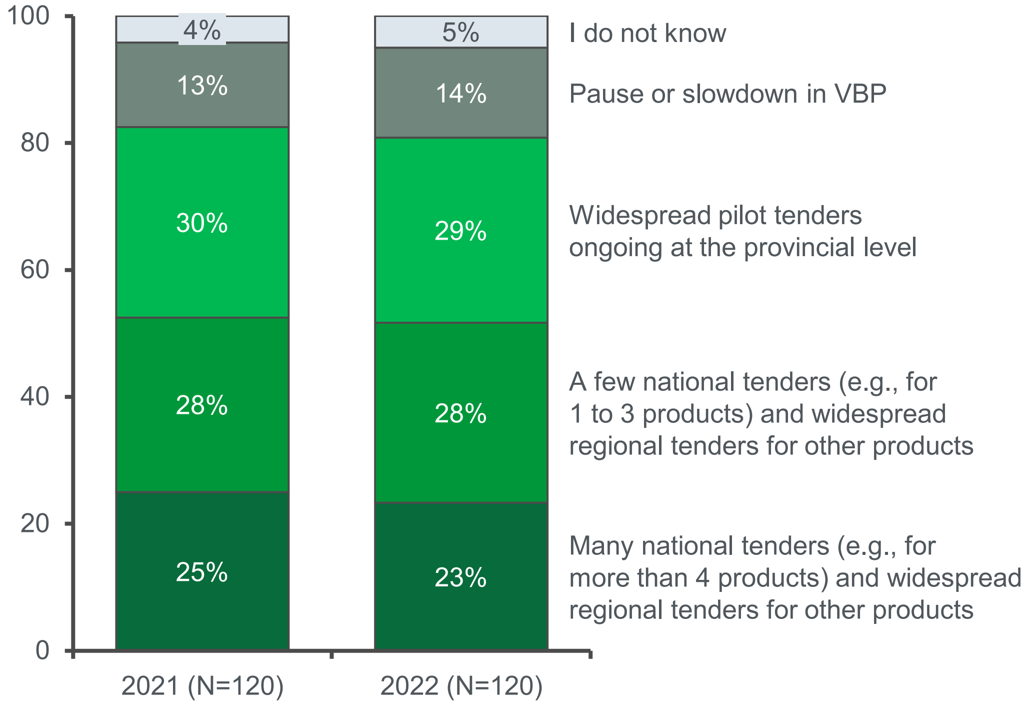
Change from 2021 (ppt)	Overall (N=120)		Public L3 (N=40)		Public L2 (N=55)		Private (N=25)	
	-16	+21	-26	+30	-15	+15	-1	+22

Note: *Survey question: How have your hospital's capital expenditure on medical devices / equipment changed over the last 3 years (CAGR)? How do you expect your hospital's capital expenditure on medical devices / equipment to change over the next 3 years (CAGR)? 您所在医院过去三年医疗器械/设备支出的年均增长变化如何？您预计未来三年医疗器械/设备支出的年均增长变化如何？
Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Surveys

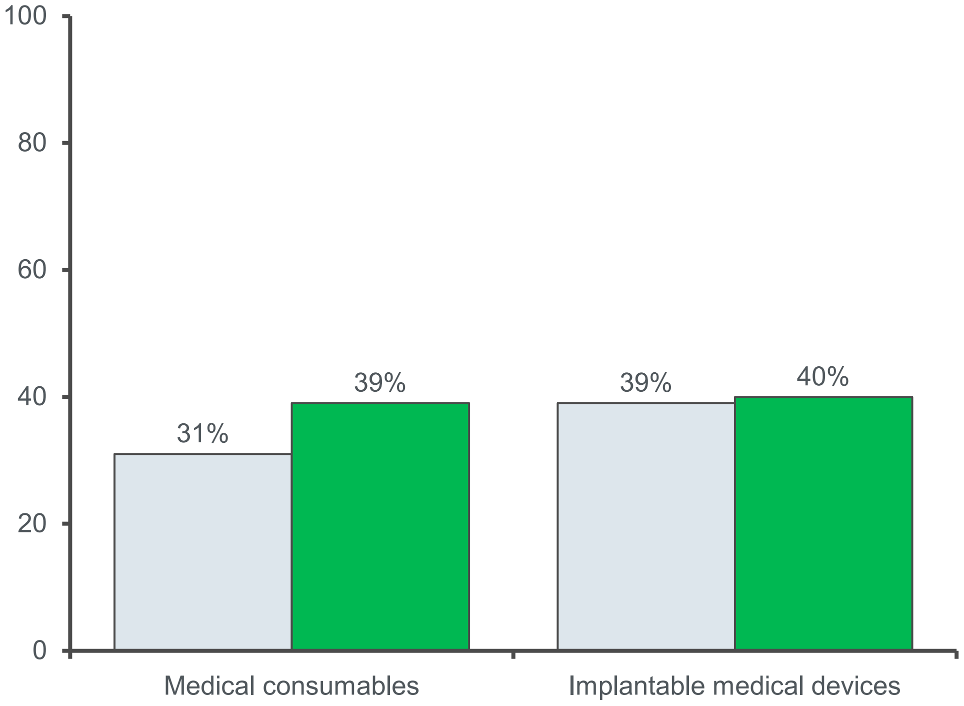
National and regional Volume Based Procurement tenders will continue to roll out in medtech; this is already a key procurement approach for 80% of hospitals and covering 40% of consumables

2 VBP and DRG

Expected adoption of volume-based purchasing in China* (2021-22)
Percent of respondents



% of medical product spending through centralized procurement (2021-22)**
Average % (N=95)

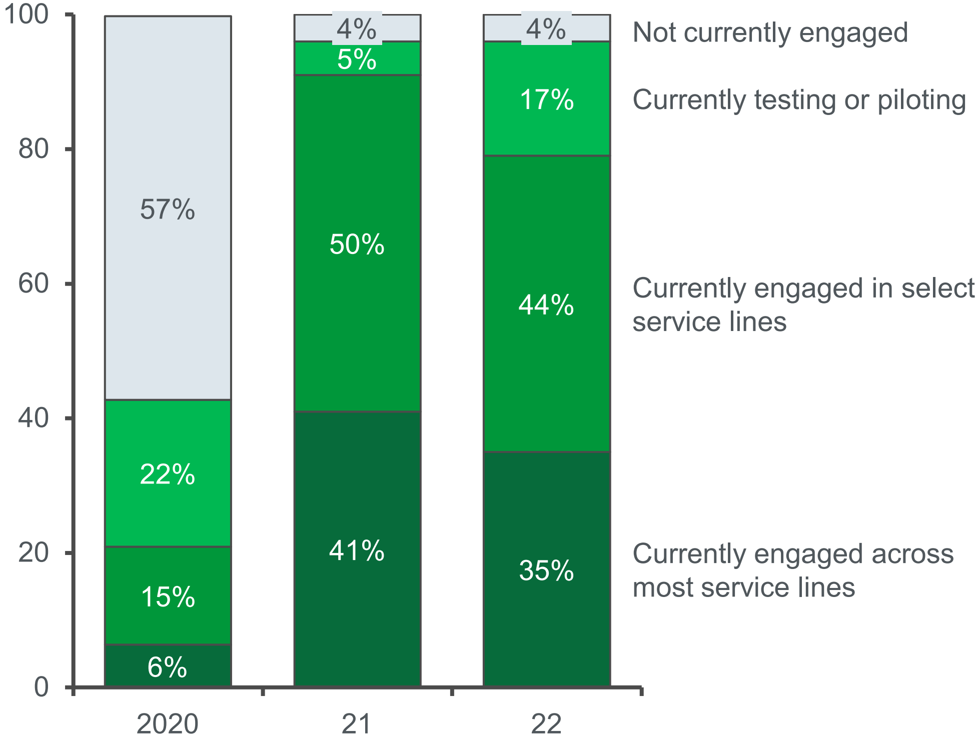


Note: *Survey question: This question pertains to volume-based centralized procurement (VBP) of medical consumables. Currently certain products are being procured at the province level, and some are being procured at the national level (e.g., cardiac stents). What do you expect to be the status of VBP by the end of 2021? 这个问题涉及医疗耗材的带量采购。目前、部分产品是省级带量采购、另外还有一些产品是通过国家集中带量采购（例如：心脏支架）进行购买。到2021年底、您预计带量采购将会发展到什么程度; **Survey question: What portion of your hospital’s spending on medical products is done through volume-based centralized procurement currently? How does this vary by type of product? 您所在医院的医疗产品支出中有多少通过带量采购完成？是否会因产品类型而异？

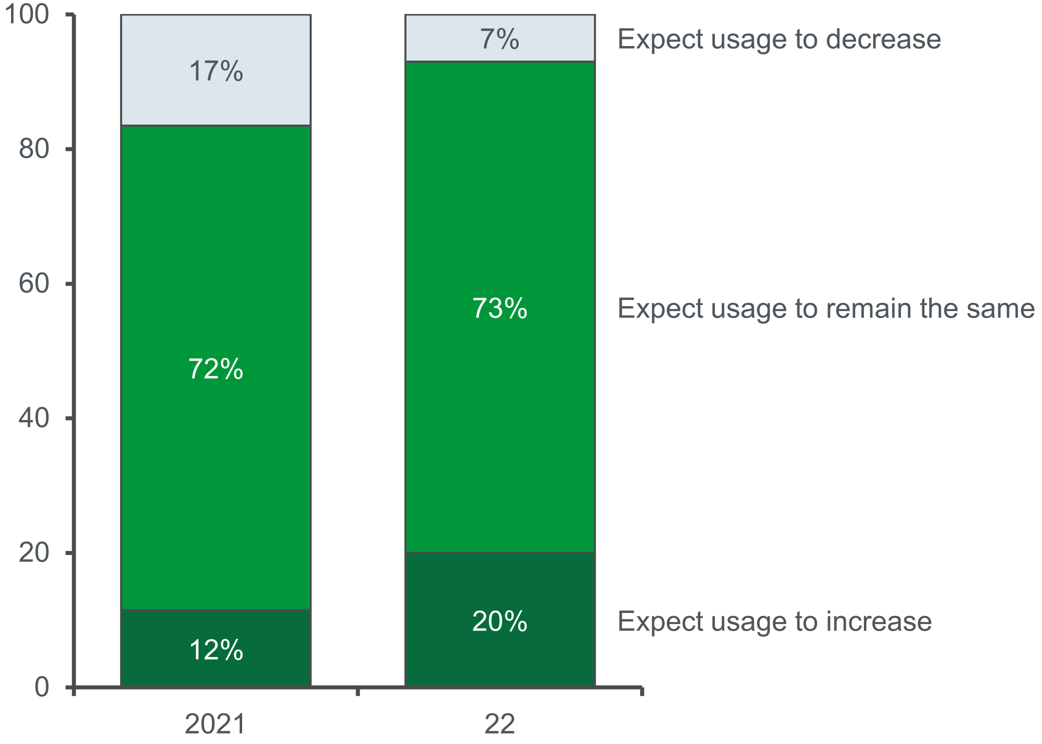
Source: L.E.K. 2021 and 2022 APAC Hospital Priority Survey

There has been a step up in DRG / DIP since 2020 with further increase expected

Hospital engagement with case-based payment (e.g., DRG) today*
Percentage of respondents (2020, N=110; 2021 & 22, N=120)



Hospital engagement with case-based payment (e.g., DRG) over the next three years**
Percentage of respondents (2020, N=110; 2021 & 22, N=120)



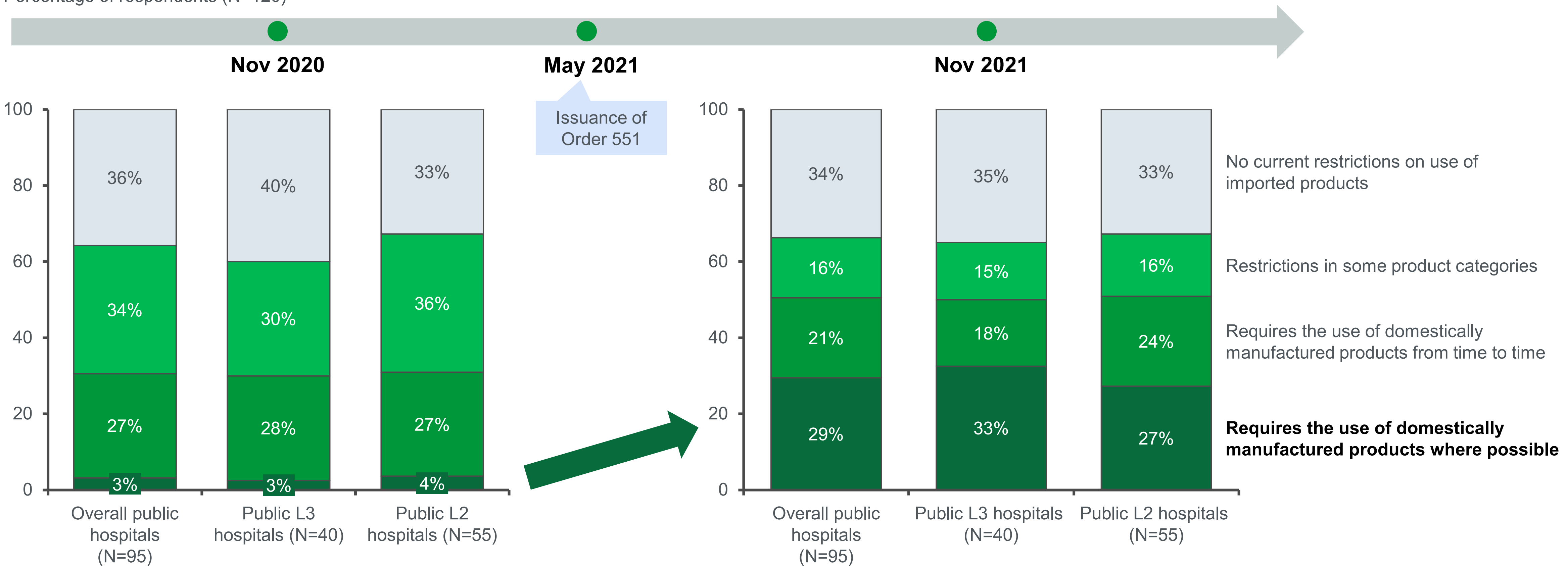
Note: *Survey question: Please describe the extent to which your hospital is using case-based payment (e.g., DRG) today. 贵医院目前使用按病种付费模式（例如：按疾病诊断相关分组付费）的程度如何？您认为未来三年内会如何变化？**Survey question: how you foresee case-based payment (e.g., DRG) to change in the next 3 years 您认为未来三年内按病种付费模式（例如：按疾病诊断相关分组付费）会如何变化？Not included in 2020 survey

Source: L.E.K. 2020, 2021 and 2022 APAC Hospital Priorities Survey

In just 6 months after Order 551 issuance, the proportion of hospitals restricting use of imported medical equipment "where possible" jumped to 30% of hospitals

3 Localization

Restrictions on the use of imported medical device/medtech products*
Percentage of respondents (N=120)



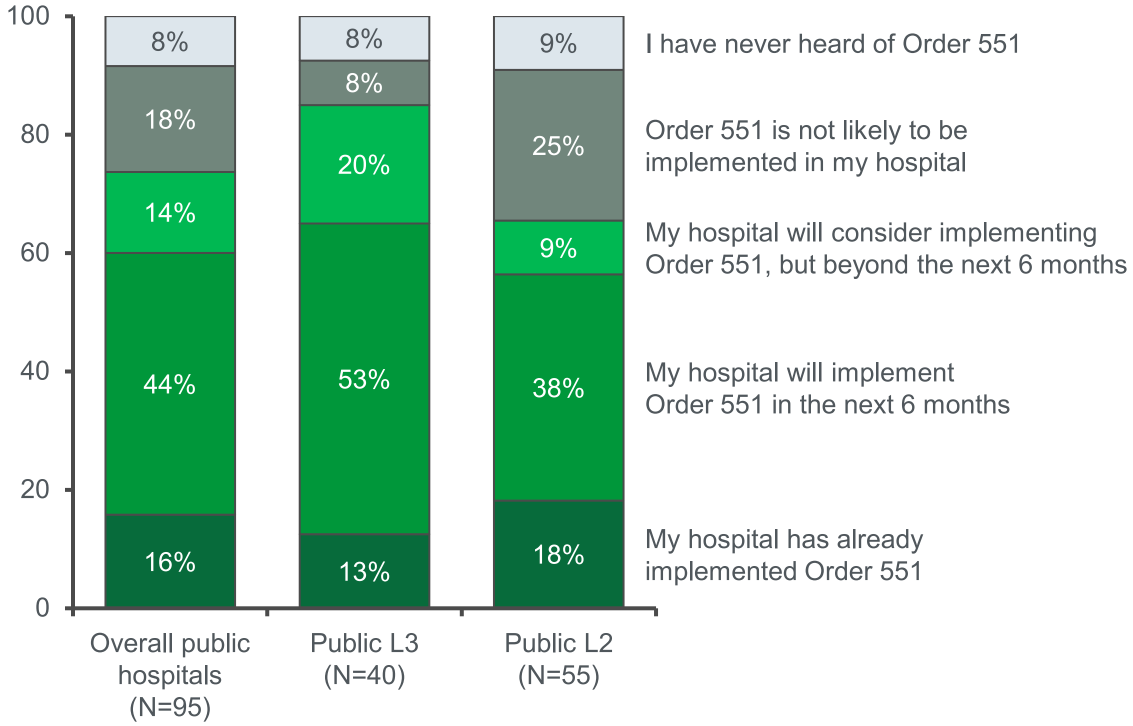
Note: *Survey question: Which of the following statements best describes your hospital's attitude towards the use of imported medtech/medical device products? 以下哪项陈述最能说明您所在医院对于进口医疗器械产品的态度？Wording for option provided was adjusted between 2021 and 2022 surveys
Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Surveys

Order 551 is being widely implemented. It is expected to have a higher impact on L3 hospitals (traditional users of import devices) than on L2 hospitals

3 Localization

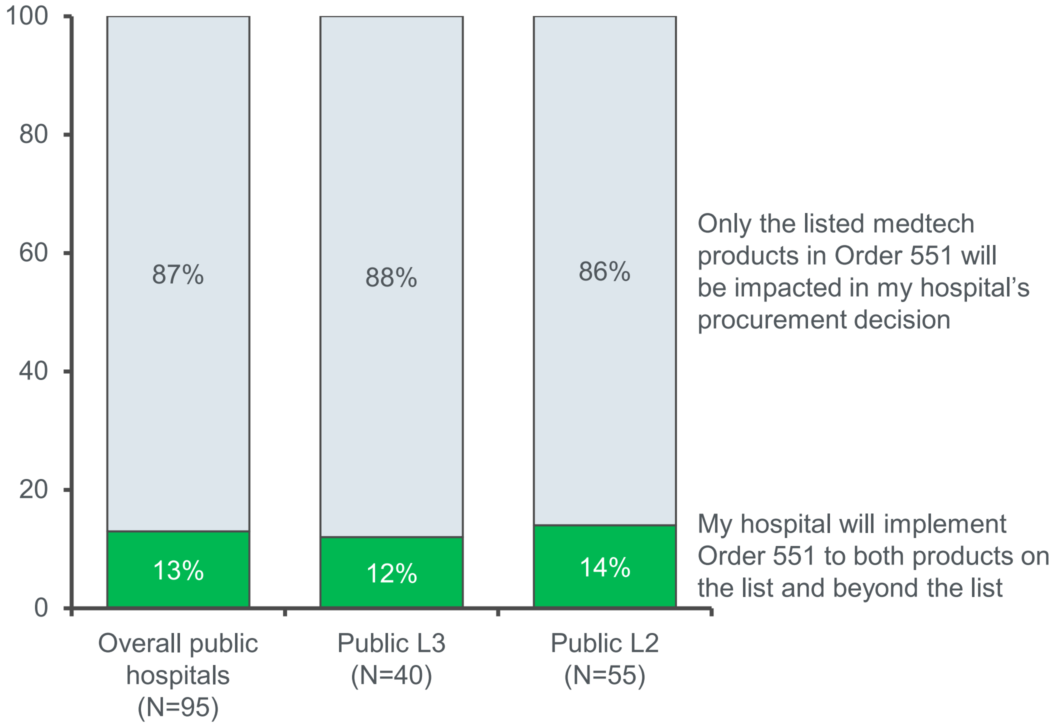
Hospital attitudes towards the implementation of Order 551 in China* (2022)

Percentage of respondents



Medtech products that are impacted by Order 551 in China** (2022)

Percentage of respondents



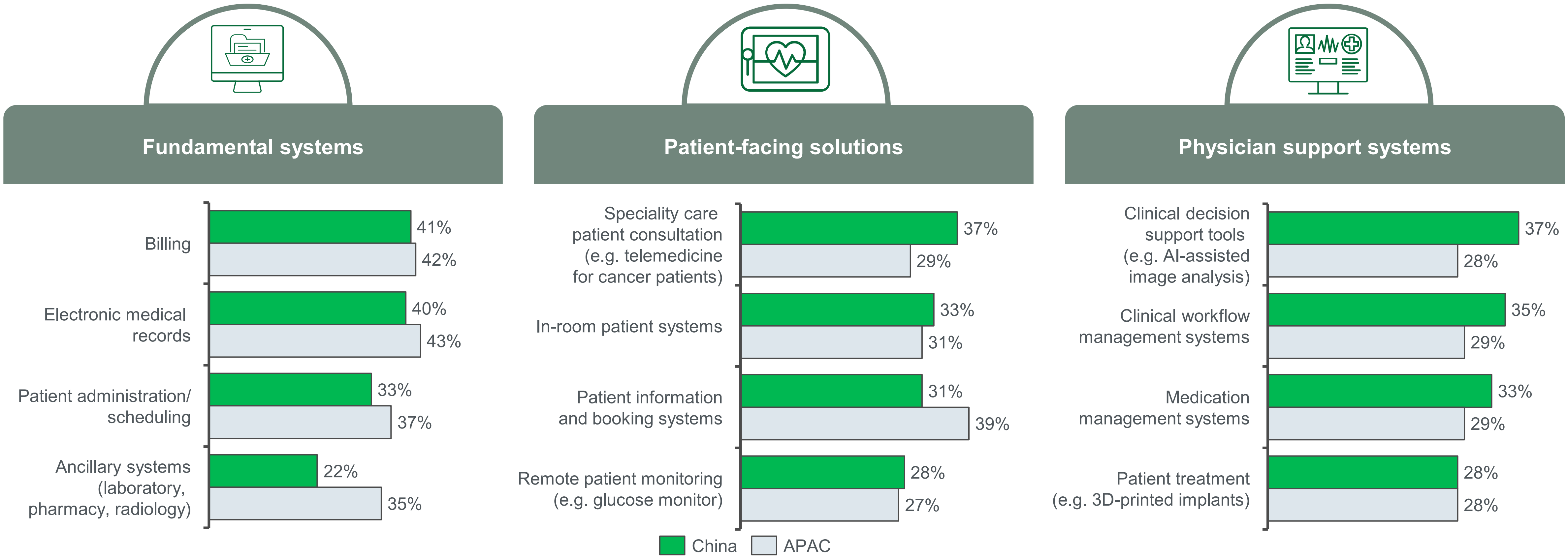
Note: *Survey question: Which of the following statements best describes your hospital's attitude towards the implementation of Order 551? 以下哪项陈述最能说明您所在医院对于551文件的态度？
**Survey question: What is the scope of medtech products that are impacted by Order 551? 受到551文件影响的医疗器械产品的范围有多大？

Source: L.E.K. 2022 APAC Hospital Priorities Surveys

Chinese hospitals have gone further than others in APAC in embracing telemedicine and physician support systems, leveraging an ecosystem of domestically developed solutions

Adoption of digital solutions*

Percentage of respondents “currently using” digital solutions

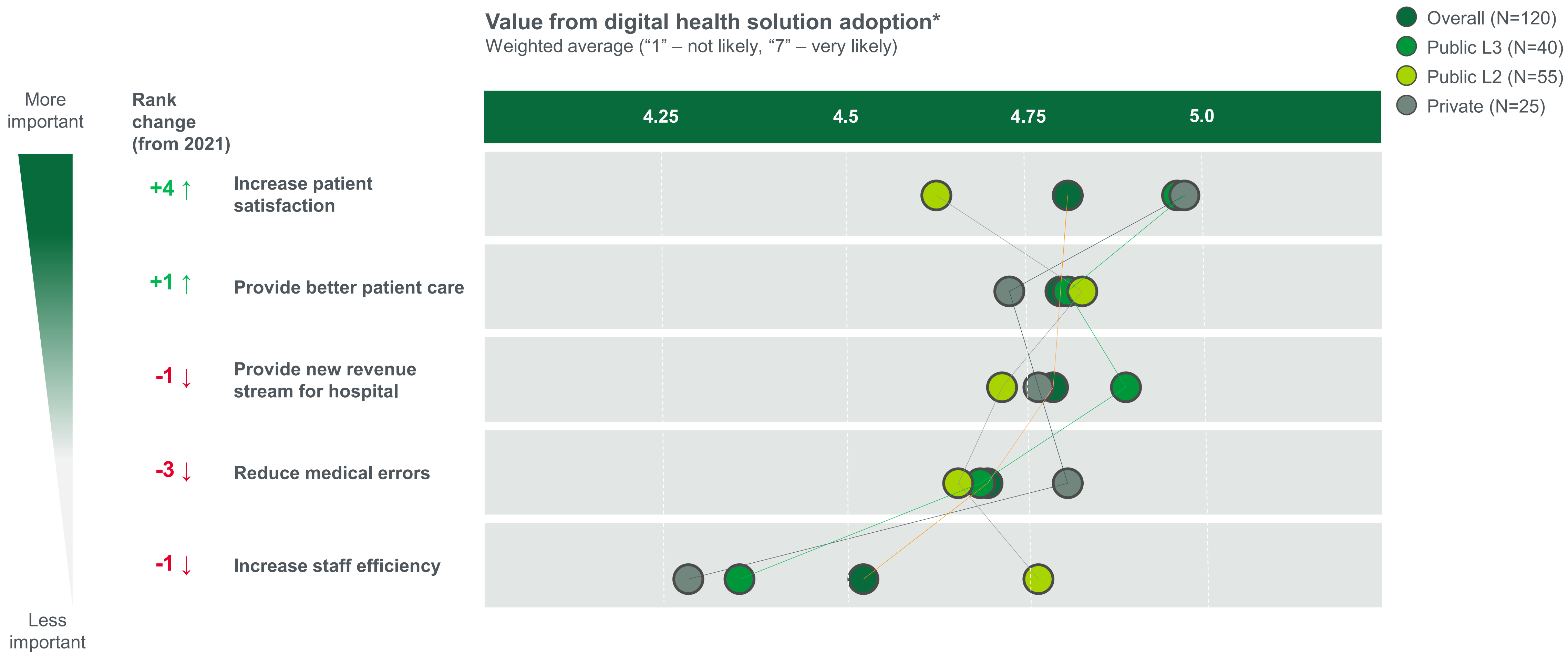


Note: *Survey question: Digitalisation of hospitals is gaining traction in many countries. What digital health solutions have you adopted/would you like to adopt? 许多国家正在推动医院数字化进程。您所在的医院已经采取了/想要采取哪些数字医疗解决方案？Respondents who answered that the hospital is “currently using” each digital solution

Source: L.E.K. 2022 APAC Hospital Priorities Survey

Most hospitals seek increases in patient satisfaction and better patient care with the adoption of digital health solutions; there is a shift ongoing with less emphasis on using digital to address medical errors

4 Digitalization and innovation

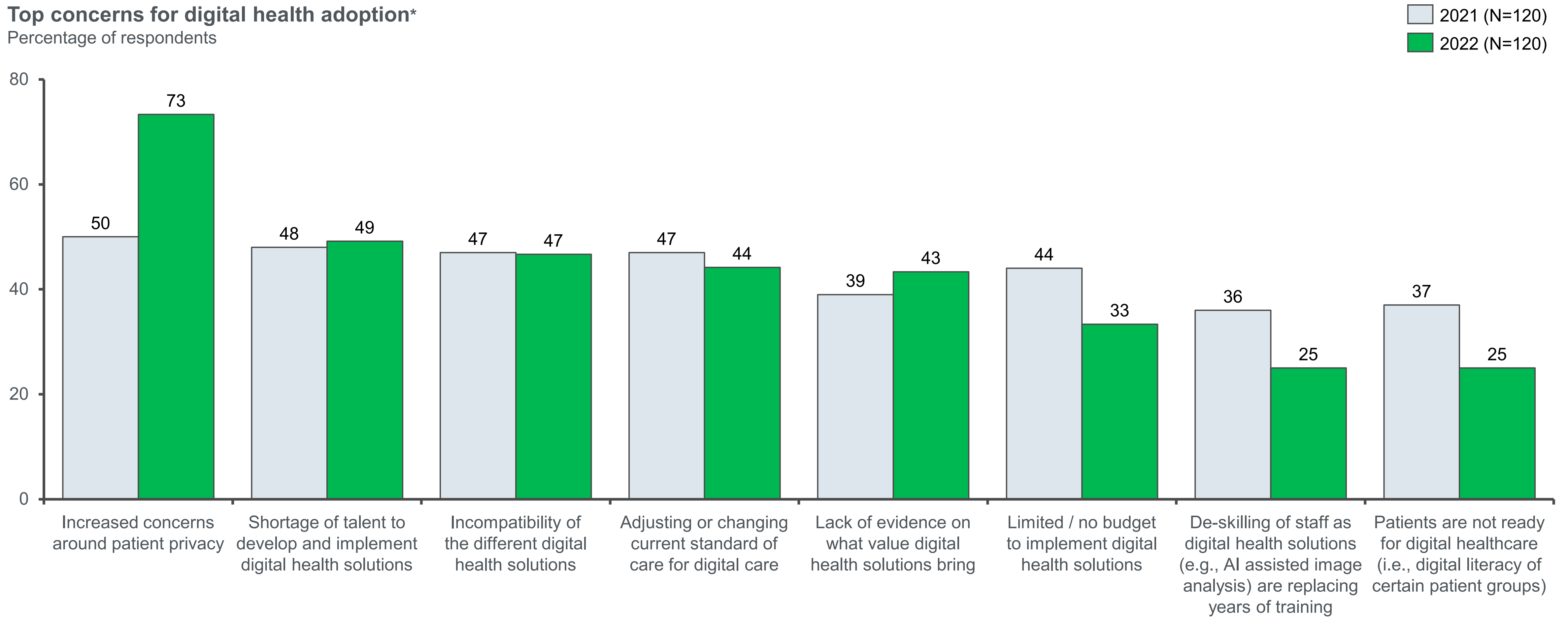


Note: *Survey question: What value do you think digital health solutions will likely bring about for your hospital? ("1" – not likely, "7" – very likely) 您认为数字医疗解决方案是否可能会给您所在的机构带来以下价值？
Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Surveys

New data legislation has raised the visibility on patient privacy; shortages of digital talent and interoperability of systems are issues as adoption broadens

4 Digitalization and innovation

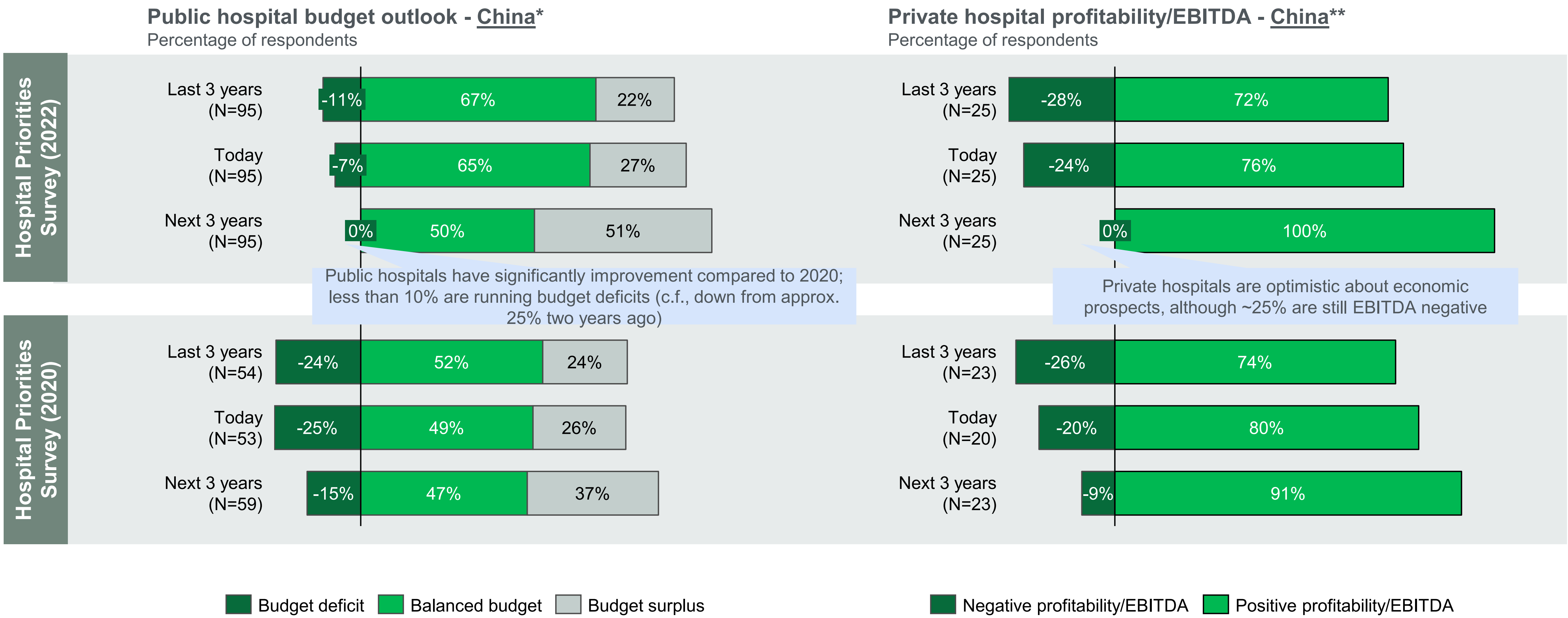
Top concerns for digital health adoption*
Percentage of respondents



Note: *Survey question: What are your concerns for digital health adoption? 您对数字医疗解决方案的使用有何担忧？
Source: L.E.K. 2021 and 2022 APAC Hospital Priorities Survey

Appendix: Hospital financial outlook

75%-90% of hospitals have achieved a balanced budget or positive EBITDA margin; public hospitals have significant improvement on economic conditions compared to 2020



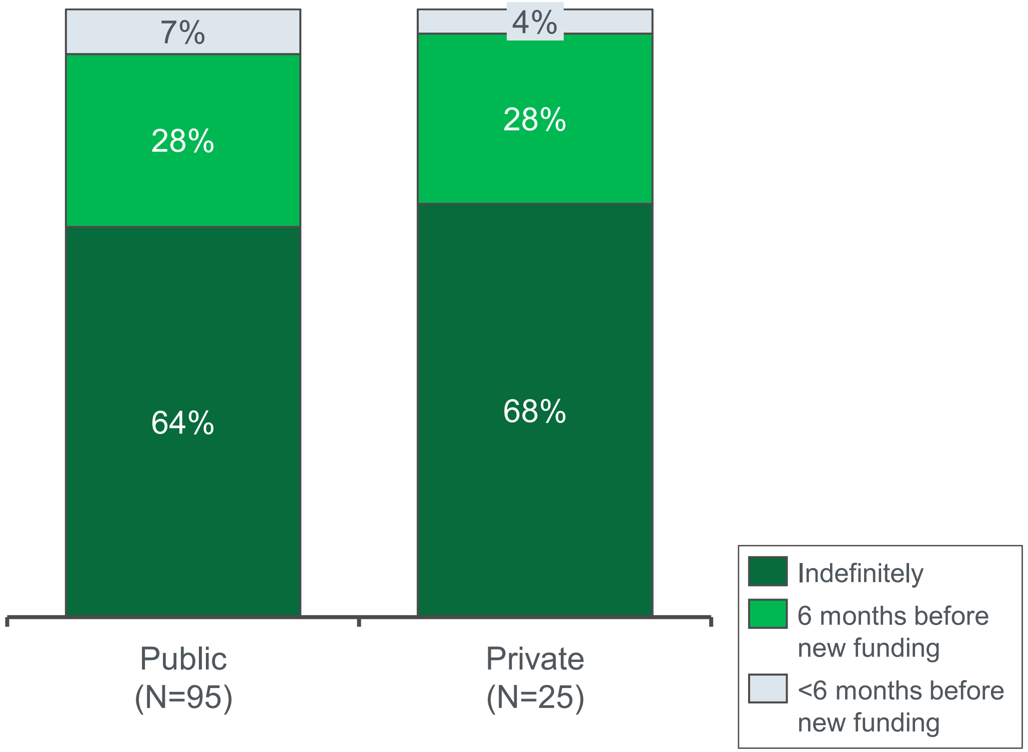
Note: *Survey question: What is the level of budget surplus/deficit incurred by your hospital today? Responses with “I do not know/prefer not to disclose” have been excluded
** Survey question: What is the EBITDA margin/profitability level of your hospital? Responses with “I do not know/prefer not to disclose” have been excluded

Source: L.E.K. 2020 and 2022 APAC Hospital Priorities Surveys

~65% hospitals run sustainable business model, while the rest require additional funding going forward; key impact factors on sustainability include COVID, cost reduction and economic growth

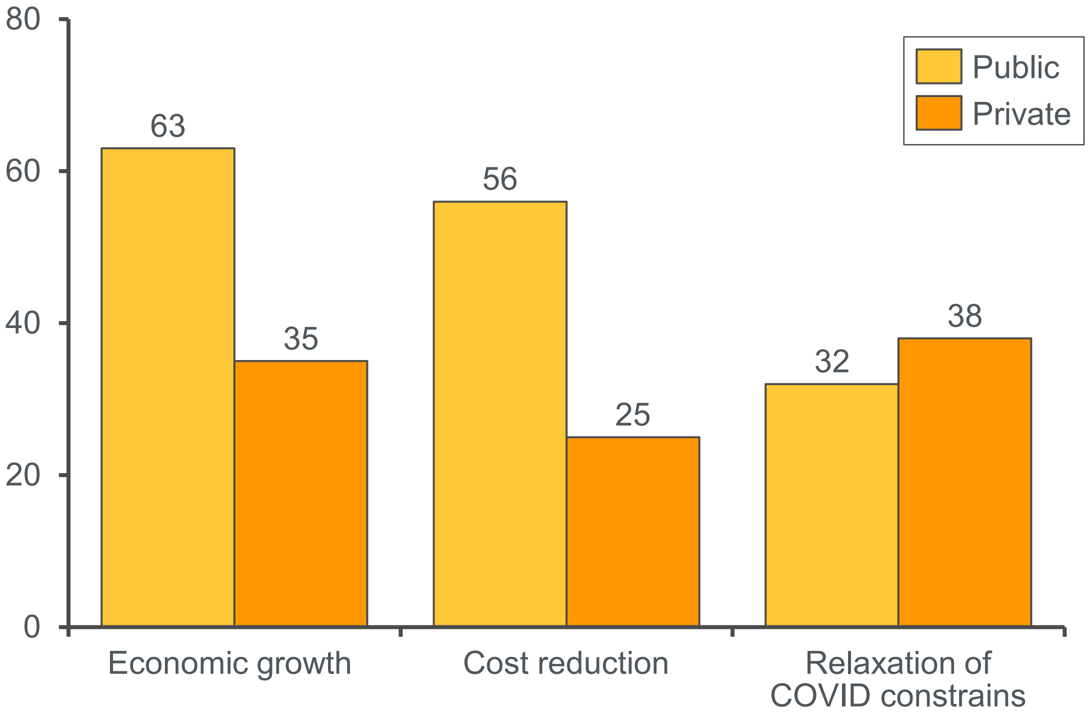
~65% hospitals run sustainable business model

Business sustainability outlook (2022)*
Percentage of respondents



COVID situation, cost reduction and economic growth act as key factors

Top 3 changes that will positively impact business sustainability (2022)**
Percentage of respondents



Note: *Question: 'At current rates of profitability, how long is the business sustainable for? 以目前的利润率、医院运营能够维持多久？**Question: 'What changes would have a positive impact on business sustainability?'(Question only for respondents who indicated a need for funding to sustain business moving forward).什么样的变化能够对医院的可持续性产生积极的影响？

Source: L.E.K. 2021, 2022 APAC Hospital Priorities Survey

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