International comparisons of selected service lines in seven health systems

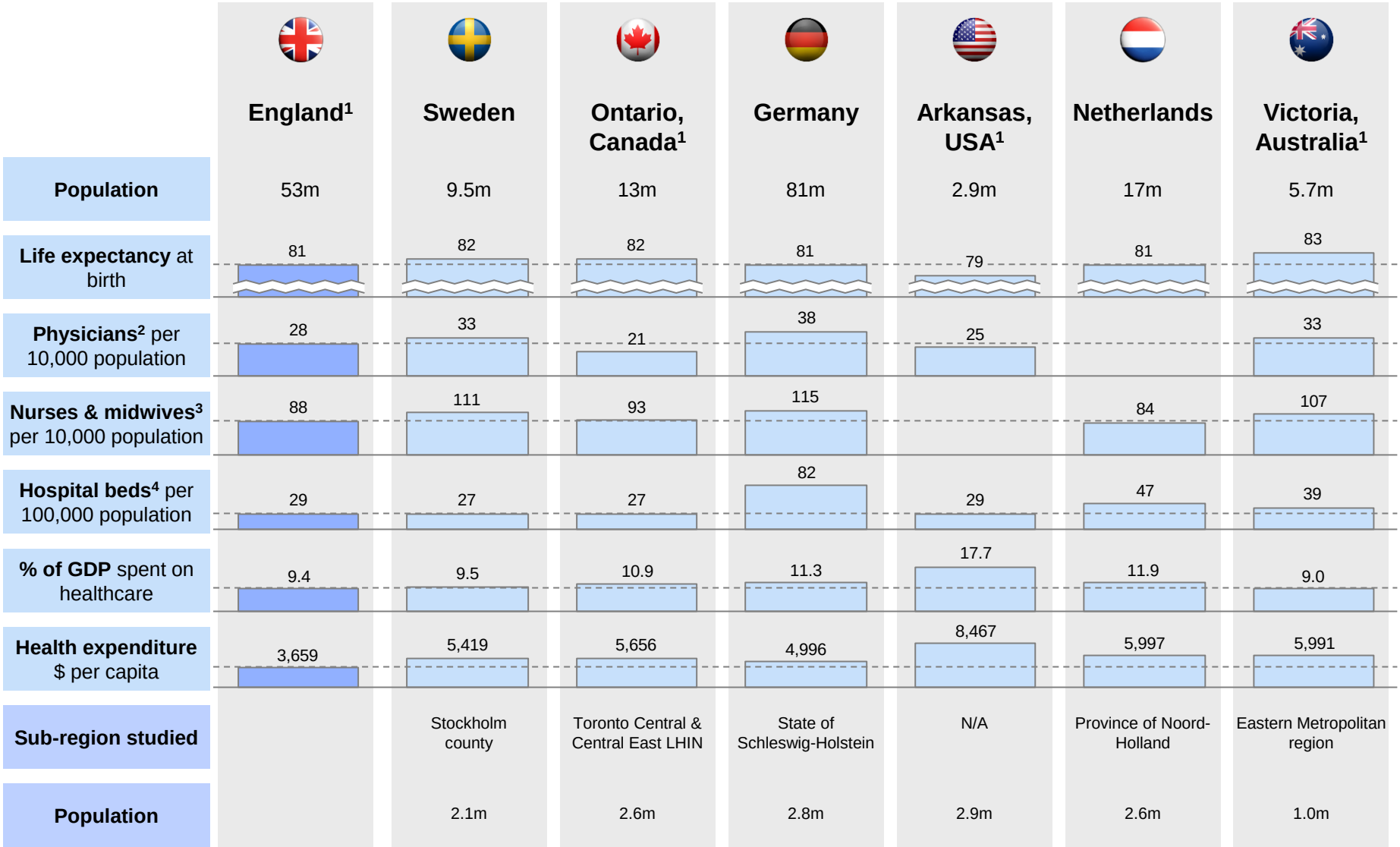
ANNEX 2 – COUNTRY OVERVIEWS

Evidence report

October 27th, 2014

Contents

High-level comparison of healthcare systems



1. Healthcare indicators are at country-level, i.e. United Kingdom, Canada, USA, Australia; 2. Includes generalist medical practitioners and specialist medical practitioners; 3. Figures include nursing personnel and midwifery personnel/ In many countries, nurses trained with midwifery skills are counted and reported as nurses. This makes the distinction between nursing personnel and midwifery personnel difficult to draw; 4. Hospitals include district, rural, provincial, specialized, teaching and research hospitals.

SOURCE: WHO World Health Statistics 2014

International comparison of medical education and training

	U.S.	Canada	Australia	France	Germany	Sweden	U.K.
Medical school							
• Years of education							
– Pre-med	• 4 years	• 4 years	• 3 years (optional)	• None	• None	• None	• None
– Med	• 4 years	• 4 years	• 4–6 years	• 6 years	• ≥6 years	• 5.5 years	• 4-6 years
• Medical degree awarded	• MD	• MD	• MBBS[3]	• MD*	• Staatsexamen	• Läkare	• "First MB"*
• Centralised final exam	• Yes (USMLE)[1]	• Yes (MCCQE)[2]	• No	• Yes (ECN[4])	• Yes (Staatsexamen)	• Yes (Läkarexamen)	• No
Specialty training selection							
• When?	• In final year of medical school	• In final year of medical school	• During basic training and after specialist entry exam	• In final year of med school and after ECN[4] exam	• In final year of medical school	• During 18–21 months internship	• In second post graduate year
• Centralised selection process	• Yes, ERAS[5]/NRMP[6]	• Yes, CaRMS[7]	• Yes, centralised by specialty	• Yes, based on ECN[4] scores	• No	• No	• Both central and local
• Timing	• Once per year	• Once per year (two rounds)	• Once per year	• Once per year	• Continuous	• Continuous	• Once per year
• Match/individual negotiation	• Match	• Match	• Individual negotiation	• Match	• Individual negotiation	• Individual negotiation	• Combination
• Selection criteria	• CV, PS[8], LoRs[9], MSPE[10], tran-script, USMLE[1]	• CV, PS, LoRs[9], PS, MSPR[11], transcript	• Application form, CV , LoRs[9], transcript	• ECN[4] scores	• CV, transcripts, LoRs[9], Staatsexamen	• CV, transcripts, LoRs[9]	• CV, references, interview
Specialty training							
• Run-through process	• Yes	• Yes	• No, except for selected specialties	• Yes	• No	• No	• Yes
• Modular?	• Yes	• Yes	• Limited	• Limited	• Limited	• Limited	• Limited
• Training pre-requirements	• 1 year internship (in some cases)	• None	• 1 year internship + 1–2 years RMO[12]	• None	• None	• 18–21 month internship	• 2 years Foundation training standard
• Years of specialty training	• 3–7 years	• 4–6 years	• 5–7 years	• 4–6 years	• 5 + years	• 5+ years	• 5+ years
• In-training assessment	• Competency assessment, specialty specific exams	• Competency assessment	• Competency assessment, specialty specific exams	• Competency assessment	• No structured assessment	• No structured assessment	• Competency assessment

* Received at the end of specialty training
1 U.S. Medical Licensing Examination
2 Medical Council of Canada Qualifying Exam
3 Bachelor of Medicine, Bachelor of Surgery
4 Epreuves Classantes Nationales
5 Electronic Residency Application service
6 National Residency Matching Programme
7 Canadian Residency Matching Service
8 Personal Statement
9 Letter of Recommendation
10 Medical Student Progress Evaluation
11 Medical Student Progress Report
12 Resident Medical Officer

*MBBS; MBBS/BSc; MBChB; MBBCh; BMBS depending on the school

Source: OECD; McKinsey analysis

Contents

Executive summary – The Netherlands compared to the NHS

In the Netherlands, similar to in England, most hospitals provide all service lines. While there is a move towards centralisation, the Netherlands is only just starting on this path and trails behind the NHS where centralised stroke and paediatric care have already been implemented at some locations

- In the Netherlands **configuration of care is driven by hospitals and private insurers**, with oversight from the ministry and regulatory bodies
  - Hospitals are private entities (but not-for-profit) and are paid through negotiable (~70% DRGs) and non-negotiable (~30% of DRGs) tariffs for diagnosis-treatment combinations (somewhat similar to HRGs)
  - The insurers are all private (though not-for-profit) and can influence healthcare providers by negotiating on tariff and volume and by selective commissioning
- Currently the Netherlands has a **high density of hospitals providing a wide range of care**, similar to the hospital landscape in the NHS
  - Almost all hospitals have an A&E department, a stroke unit and an ICU (although there exist differences in level of critical care)
- Like in England, there has been a lot of **discussion around increased centralisation** of care recently
  - The insurers have announced plans to centralise A&E, ICU and stroke services
  - This has been met with strong resistance from both patients as well as providers
  - The Ministry don't want to regulate the market and has indicated that as long as the 45 minute access target is met, there are no plans to intervene in the centralisation plans
- **Stroke services are provided by most hospitals** and no NHS-type stroke networks exist as of yet
  - Currently acute stroke care is offered in nearly all hospitals, all of which claim to have stroke units that meet international ESO standards
  - There exist CVA care networks, but these focus the post-acute care pathway by creating collaboration between a hospital and nursing homes, rehabilitation centres and other care providers. Stroke networks comparable to those in the NHS do not exist yet
  - The insurers have announced plans to centralise stroke care, following the example of London, and reduce the number of stroke hospitals significantly
- A large number of **A&E departments are co-located with GP posts**, and there are lower rates of A&E visits compared to many other health systems
  - GP posts provide out-of-hours GP services to patients
  - In recent years these posts have moved to many of the hospitals, thus providing an alternative or even a barrier to A&E
  - The ministry is working on financial incentives to further decrease unnecessary A&E visits and increase the use of GPs for urgent care
- While **nearly all hospitals have ICUs**, those with a lower level of acuity are supported by critical care networks
  - Almost all hospitals have an ICU providing critical care, however different levels of acuity exist
  - Critical care networks are mandated and have been implemented everywhere, however the types of agreements differ and are often unclear
  - To support the networks six regional mobile ICU (MICU) services have been developed for the transport of critically ill patients
  - There have been talks about cutting the number of hospitals with an ICU by half, to increase quality
- Like in the NHS, **paediatric care is provided at almost all hospitals,** although **specialist paediatric oncology care is being centralised to one location**
- **Emergency surgery as defined in England does not exist** as a distinct specialty or department

Note: DBC (Dutch term), DRG (international term) and HRG (NHS term) are all acronyms denoting the same concept

Key players in the Dutch healthcare system

Payors

- A 2006 reform introduced a single compulsory insurance scheme, in which multiple private health insurers compete for insured persons
- The four largest insurers (together 88% market share) are Achmea, UVIT, CZ and Menzis
- While all insurers are private, many are not-for-profit (of the big 4 only Achmea is for-profit)
- Insurers are obliged to provide all care as defined in the basic health insurance package, but they can compete for patients on:
  - Price of the basic health insurance
  - Quality of care
  - Complementary voluntary health offering
- Around 80% of all insured have a complementary insurance package with the same insurer (mainly for dental care etc)
- The Healthcare Insurers Netherlands (ZN) brings together all insurers and sets national and regional plans for the delivery of care through selective commissioning

Providers

- Primary health care is provided mainly by GPs, who play an important gatekeeping role for secondary, specialist care
- Public health is provided by municipal health services (GGD), who are in charge of prevention programmes, screening and vaccinations
- Long-term care is mainly provided by nursing homes, residential homes and home care organisations
- Six types of institutions provide specialist medical care:
  - General hospitals: 83
  - Categorical hospitals: 33
  - Rehabilitation centres: 31
  - University/academic medical centres (UMCs/AMCs): 8
  - Independent treatment clinics (ZBCs): 180
  - Private clinics: 99

Regulators

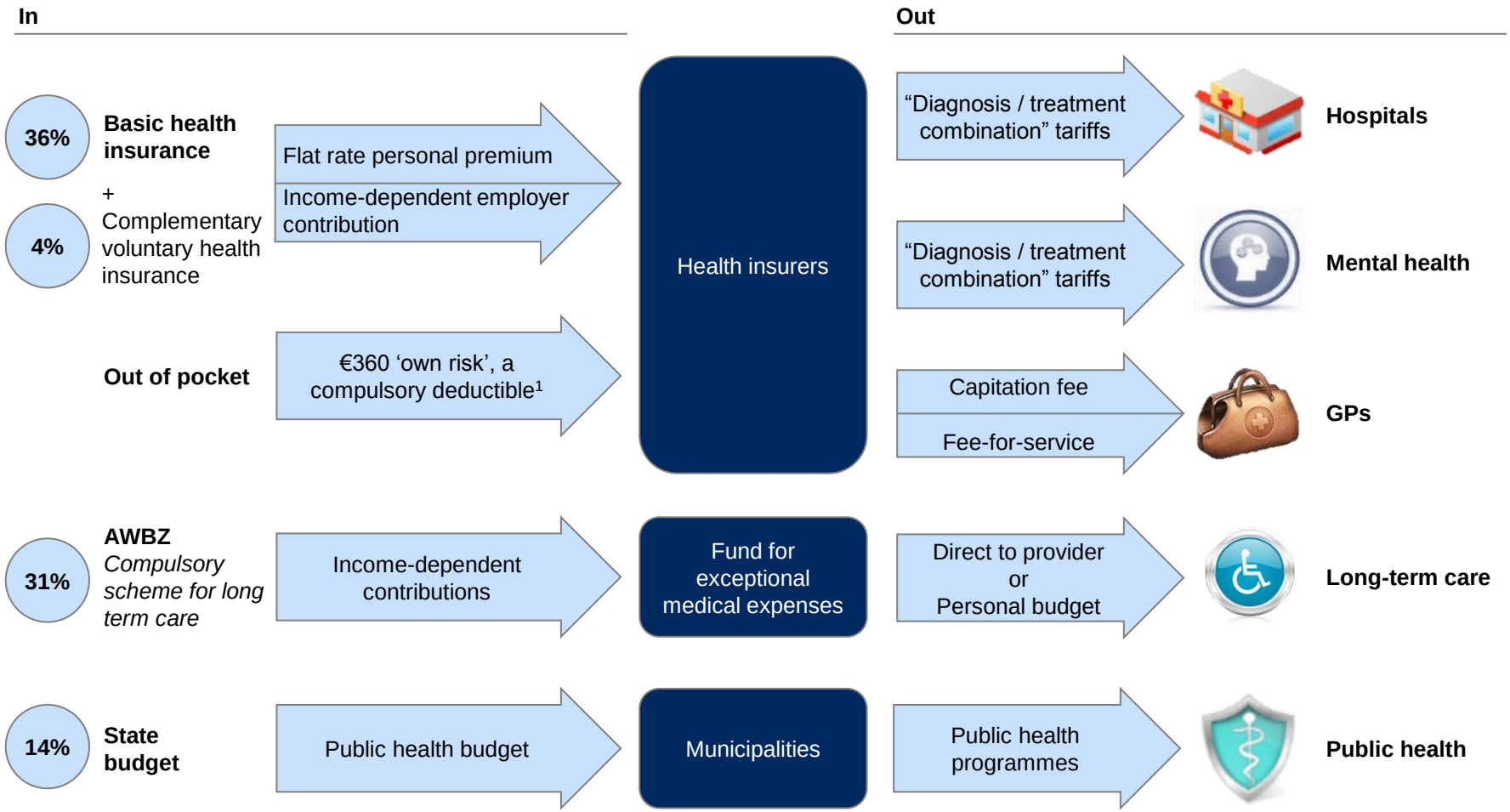
- The Health Care Inspector (IGZ) - supervises the quality and accessibility of health care
- The Dutch Healthcare Authority (NZa) - responsible for the supervision of the three health care markets (insurance, provision, purchasing) and pricing
- Dutch Competition Authority (NMa) - supervises competition in insurance and provider market

Commissioners

- Health care providers are independent and are contracted by the health insurers
- There exist two main negotiation tools
  - Negotiating on volume, quality and prices
  - Selective contracting
- Only diagnosis/treatment combinations (DBCs) in the B segment can be freely negotiated (70% of DBCs in 2012)
- Prices for the A segment are set nationally by the NZa

SOURCE: Nederlandse Vereniging van Ziekenhuizen; Schafer et al., Health Systems in Transition: The Netherlands, 2010

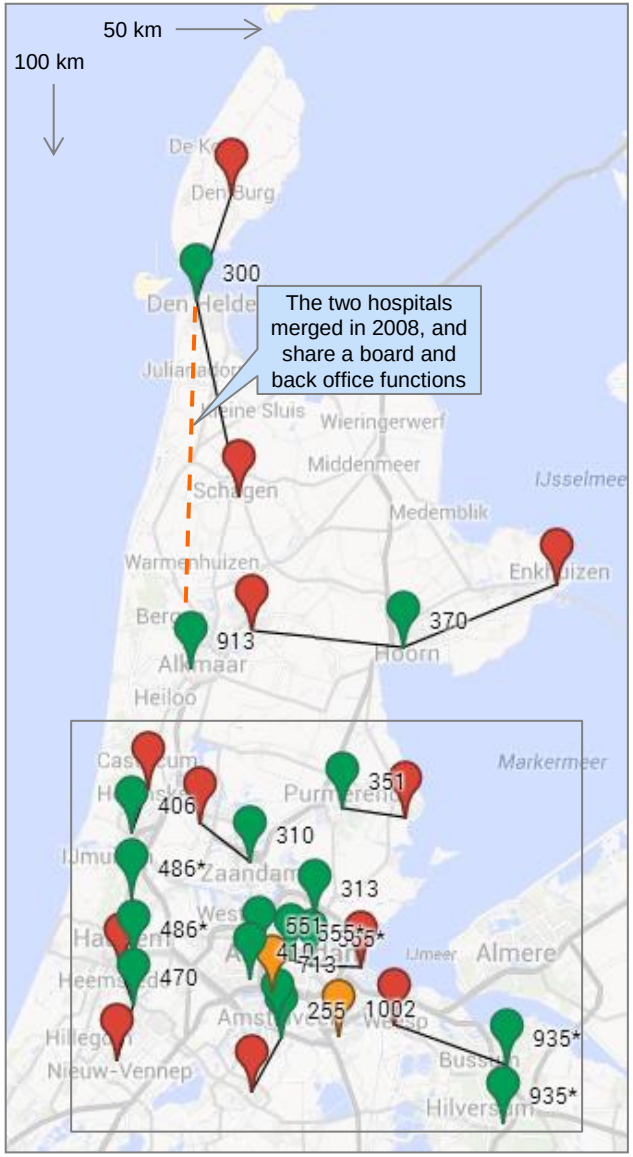
Financial model in the Netherlands

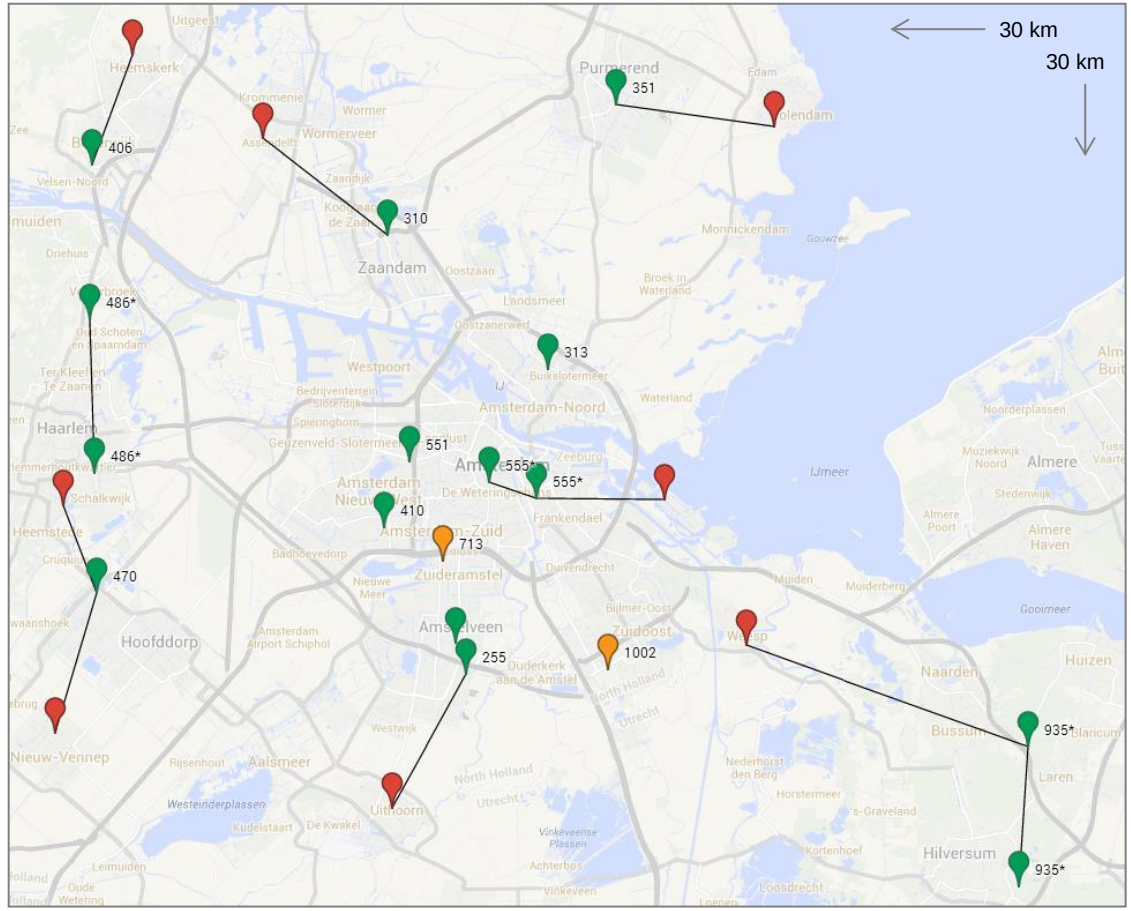


1 GP services are excluded from the deductible

SOURCE: Rijksoverheid.nl; Schafer et al., Health Systems in Transition: The Netherlands, 2010

The provider landscape in Noord-Holland





- General hospital
- External outpatient clinic
- Academic medical centre
- # Number of acute beds
- #* Bed capacity shared between two locations
- — Locations belonging to one hospital

Population: 2.3m

SOURCE: Nationale Atlas Volksgezondheid

Most hospitals offer a wide range of services

	Gemini Ziekenhuis	Westfries Gasthuis	Waterlandziekenhuis	Medisch Centrum Alkmaar	Rode Kruis Ziekenhuis	Zaans Medisch Centrum	Kennemer Gasthuis	Spaarne Ziekenhuis	BovenIJ Ziekenhuis	St. Lucas Andreas Ziekenhuis	Slotervaartziekenhuis	VU Medisch Centrum	Academisch Medisch Centrum	Tergooiziekenhuizen	Ziekenhuis Amstelland	Onze Lieve Vrouwe Gasthuis
# beds	*300*	*370*	*351*	*913*	*406*	*301*	*486*	*470*	*313*	*551*	*410*	*713*	*1002*	*935*	*255*	*555*
Allergology	✗	✓	✗	✗	✓	✓	✓	✓	✗	✗	✗	✓	✓	✗	✗	✓
Anesthesiology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Cardiology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Surgery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dermatology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Geriatrics	✓	✓	✓	✓	✓	✗	✓	✓	✗	✗	✓	✓	✓	✓	✗	✗
Gynaecology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Internal medicine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orthognathic surgery	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓
Ear, nose and throat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Paediatrics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clinical genetics	✗	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗	✓	✓	✗	✗	✗
Clinical neurophysiology	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✗
Clincal psychology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓
Laboratory diagnostics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Respiratory diseases	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stomach, intestinal, and liver disease	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Medical microbiology	✗	✓	✗	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Neonatology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
Neurosurgery	✗	✓	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓
Neurology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nuclear medicine	✗	✓	✗	✓	✗	✓	✓	✓	✗	✓	✗	✓	✓	✓	✗	✓
Oncology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ophthalmology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orthopedics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pathology	✗	✓	✗	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓
Plastic surgery	✗	✓	✗	✓	✓	✗	✓	✓	✗	✓	✓	✓	✓	✓	✗	✓
Psychiatry	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓
Radiology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Radiotherapy	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗
Reumatology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rehabilitation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Thoraxsurgery	✗	✗	✗	✓	✗	✗	✗	✓	✗	✗	✓	✓	✓	✗	✗	✓
Urology	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

SOURCE: Nationale Atlas Volksgezondheid

Executive summary – Ontario

Compared to the NHS, acute hospital services in Ontario are more diverse and tiered. There are a tranche of smaller hospitals serving sparsely-populated areas. Services at these hospitals are tiered – degree of formality varies by service line - and the workforce is used in different ways, with GPs playing a hospital role particularly in more remote areas.

- In Ontario **configuration of care is driven by hospitals and regional public payors** (LHINs):
  - Almost all hospitals are independent not-for-profit organisations who are dependent for the majority of their funding on the national health system, through the local LHINs and state-level Ministry of Health and Long Term Care
  - Most hospitals have their own fund-raising Foundations
  - Local Health Integration Networks (LHINs) are responsible for commissioning services for their populations (on average ~1 million population) and supporting regional strategy and coordination
  - Hospitals are paid through a combination of global budgets, a weighted population needs assessment formula, and some activity-based funding
- Standards are driven through a combination of mechanisms including voluntary accreditation, audits and networks (e.g. for stroke and perinatal health), professional bodies and LHIN contractual oversight and commissioning power
- The **mix of hospitals includes major secondary/tertiary hospitals** concentrated in the large cities and a range of **much smaller providers serving local catchment populations**, offering a level of services defined by size and scale, supported by relatively advanced systems for retrieval and transfer
- For many of the more specialised service lines, provision is centralised, tiered and/or supported by telemedicine and networks:
  - Almost **all hospitals have a 24/7 A&E department and level II critical care** (often not intensivist-led)
  - **Level III critical care is concentrated in larger city hospitals** and high occupancy and repatriation are recognised problems. Strategies are currently being pursued to improve critical care audit, regional transfer/bed management and expert support (including 24/7 specialist remote decision support) for lower tier providers.
  - **Inpatient paediatric services are highly centralised** at a single secondary/tertiary specialist paediatric hospital (Sick Kids). Within the Toronto area, few other hospitals admit children under any circumstances, and outside of the city, hospitals offer only limited inpatient paediatric assessment and treatment, with established protocols to transfer to Sick Kids when required. This is supported by a single electronic Child Health Record in operation across the state and used by most providers
  - **Acute stroke care is centralised** with designated specialist stroke centres, supported by transfer protocols and telemedicine to serve remote areas, and further formal designation criteria for acute stroke units, rehabilitation and secondary prevention service providers. The stroke system is monitored by a formal audit.
  - **Risk-tiered maternity and neonatal care is offered in most hospitals** with service level defining the services that must be available and the risk category of pregnancy that the provider is able to support.
- **Hospital networks**, where 2-5 hospitals operate as a single system, and **formal affiliations**, between specialist hospitals and generalist providers, are common place. LHINs support and promote integration of services where they consider this to be a strategic priority.

Key players in the Ontario healthcare system

Payors

- **Universal healthcare coverage is funded through taxation** and accounts for 70% of total healthcare spending. It provides coverage for:
  - Medically necessary clinician care (no co-pay)
  - Hospital care (no co-pay)
  - Some subsidies for prescribed medicines: e.g. for elderly, low-income and disadvantaged groups
  - Some subsidies for long term care and home care
- Supplementary health insurance (offered by some employers) and out-of-pocket spend cover dental, optical, prescriptions and other care not covered by the state

Providers

- Most **acute hospital providers are not-for-profit organisations** and networks exclusively or predominantly funded by the LHINs, though private for-profit providers of are beginning to emerge for some elective and/or ambulatory services
- **Most physicians are independent contractors,** either self-employed or part of physician groups, working on a fee-for-service basis though there are a broader range of models for primary care (see next page)
- Ancillary services – ambulance services, laboratory services – tend to be privately-run organisations (some not-for-profit) with their own LHIN contracts

Regulators

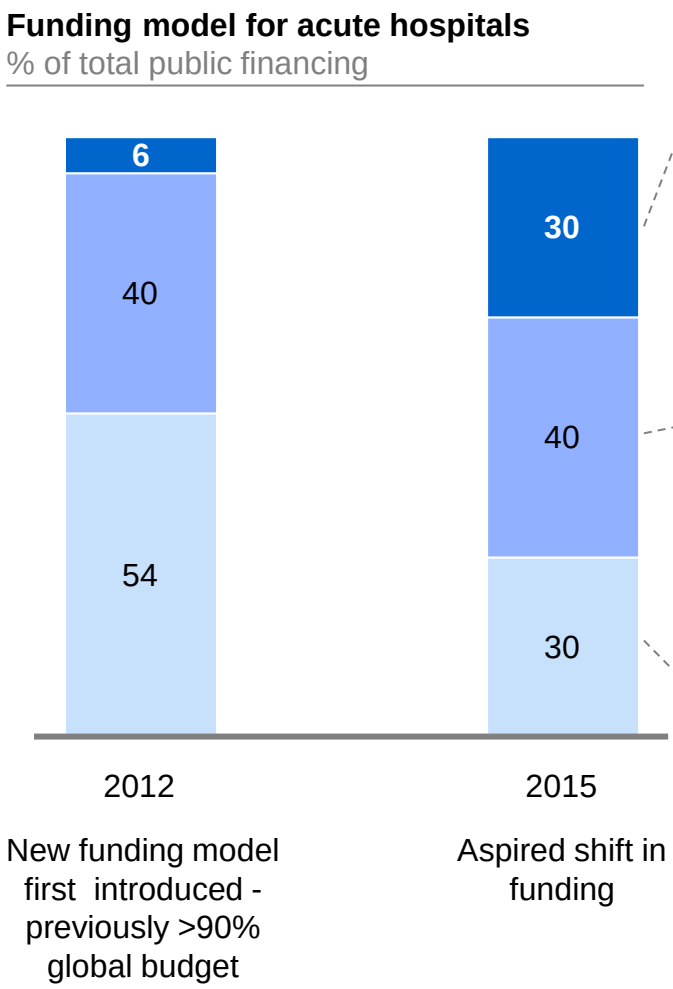
- The predominant model if self-regulation through:
  - Voluntary accreditation for hospitals (accreditation paid for and run by the member hospitals)
  - Physician governing bodies (Royal Colleges)
- Province governments are responsible for delivering healthcare required by national legislation, the operation of which is carried out predominantly through the LHINs
- There are >200 non-governmental professional associations, patient associations and other bodies which have varying degrees of influence in terms of setting standards, guidance and other forms of regulation

Commissioners

- The commissioning function in Ontario is delivered by 14 regional **Local Health Integration Networks** (LHINs) created in 2006
- LHINs have no provider role but as the dominant source of funds for most providers they play a strong role in strategic oversight and planning of provision
- LHINs are responsible for ensuring national access and improvement commitments are delivered to their populations
- LHINs contract with providers through a wide range of different payment models (see next pages)

SOURCES: Marchildon P, Health Systems in Transition, Vol 15(1), 2013, Canada: health system overview, European Observatory on Health Systems and Policy; Ontario Ministry of Health and Long Term Care

Payment model for hospitals in Ontario



Quality Based Procedures (QBPs)

- Activity based funding model which includes some payment-for-quality elements
- Currently covers a small number of high-volume elective procedures – hips and knees, cataracts, CKD - with plans to roll out to a broader range of treatment episodes including stroke, chemotherapy, CHF, COPD, non-cardiac vascular surgery and GI endoscopy from 2013/14

Health Based Allocation Model (HBAM)

- A "made in Ontario" model for predicting activity and costs for a hospital, based on:
  - Historic volumes of activity and access patterns
  - Expected demographic change
  - Provider size and teaching status

Global budget

- Traditional approach to hospital financing - a local negotiation between LHIN(s) and providers
- Considered to be a poor mechanism for driving efficiency and reducing waiting times (leading to QBPs) and fair allocation (leading to HBAM)

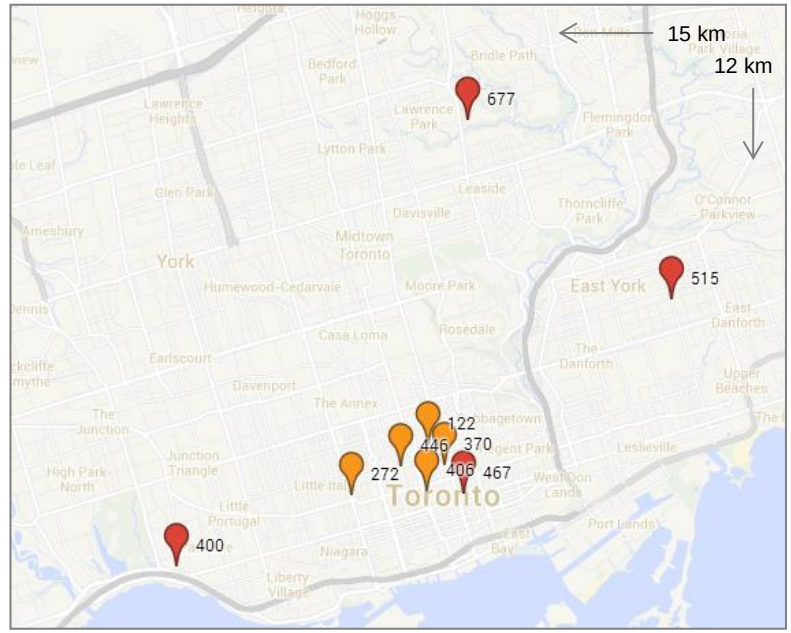
SOURCES: Ontario Ministry of Health and Long Term Care (http://www.health.gov.on.ca/en/pro/programs/ecfa/funding/hs_funding_qa.aspx#6)

Payment models for primary care in Ontario

	Services provided	Funding model
Community health centres	▪ Range of different models but usually offer 24/7 or extended opening hours and urgent care services as well as links to social services etc ▪ Located in under-served areas offering culturally-specific programs	▪ Salaried GPs and other staff
Family Health Groups	▪ Traditional GP practice model though the GP may also have admitting rights at some hospitals for some conditions (e.g. maternity)	▪ Blended fee-for-service
Family Health Networks/ Organisations	▪ Traditional GP practice model though the GP may also have admitting rights at some hospitals for some conditions	▪ Blended capitation
Family Health Teams	▪ Multi-disciplinary primary care team including GPs, nurses, pharmacists, dieticians, social workers providing chronic disease management services as well as primary care ▪ Extended opening hours (including 24/7 telephone access to NP) ▪ May focus on serving specific sub-populations	▪ Blended capitation model

SOURCES: Ontario Ministry of Health and Long Term Care (http://www.health.gov.on.ca/en/pro/programs/fht/); Marchildon P, Health Systems in Transition, Vol 15(1), 2013, Canada: health system overview, European Observatory on Health Systems and Policy

The provider landscape in Central Toronto LHIN and Central East LHIN



Population: 2.6m

- General hospital
- Academic medical centre
- 300 Number of acute beds
- 300* Bed capacity shared between two locations
- — Locations belonging to one hospital

SOURCE: Central Toronto LHIN; Central East LHIN; hospital websites and Annual Reports

Overview of hospitals in Central and East Toronto

Hospital	Beds	Catchment pop.	Type	Comments
Toronto General Hospital	406		AMC	University Health Network member; State telemedicine hub
St Joseph's Health Centre	400		Acute teaching hospital	
The Hospital for Sick Children	370		AMC	Secondary/ tertiary paediatrics
Mount Sinai	446		AMC	
St Michael's Hospital	467		Acute teaching hospital	
Sunnybrook Hospital	677		Acute teaching hospital	535 long term care beds
Toronto East General Hospital	515		Acute teaching hospital	
Toronto Western Hospital	272		AMC	University Health Network member
Princess Margaret Cancer Centre	122		Specialist cancer AMC	University Health Network member
Haliburton Highlands	14	16k	General hospital	Telemedicine/helipad
Ross Memorial Hospital	175	80k	General hospital	
Peterborough Regional Health Centre	494	600k	General hospital	
Campbellford Memorial Hospital	34	30k	General hospital	
Lakeridge Health System	423		General hospital	
Northumberland Hills Hospital	137	60k	General hospital	
Rouge Valley	260		General hospital	Integration plans; planned full merger on hold but plans to integrated services are continuing
Scarborough Hospital	814		General hospital	

SOURCE: Central Toronto LHIN; Central East LHIN; hospital websites and Annual Reports

Executive summary – Sweden

In Sweden, the level of centralisation of care differs by service line. Inpatient paediatric care is highly centralised; maternity care is delivered by providers but at different acuity levels and with clear referral patterns; while critical care, emergency surgery, stroke and A&E is present in all acute hospitals. In addition, primary care clinics play an important role in providing emergency and paediatric care

- The **counties in Sweden are in charge of funding and providing healthcare**, and have considerable freedom in their approach
  - Financial payment systems to providers are decided by the county, and vary across the country
  - While Stockholm county has a large number of private primary and acute providers, in other counties there are little to no private players
- Like in England, **most acute hospitals provide a wide range of emergency care**
  - All acute hospitals have a 24/7 A&E and an ICU, and provide emergency surgery and stroke services
- On the other hand, **inpatient paediatric care is considerably more centralised** in Sweden than in the NHS
  - In Stockholm county, there are only two hospitals (spread over three locations) that provide paediatric care
  - Other hospitals may have some emergency and outpatient services, but will transfer children who need more care
- These specialist paediatric hospitals also **provide out of hospital paediatric specialist care through local clinics**
  - Both children's hospitals have a number of clinics providing care for a range of ambulatory conditions
  - The clinics and doctors have close links to the hospitals and can refer patients there if needed
- Maternity care is provided by most acute hospitals, like in England, but **at different levels**
  - Maternity services are tiered and each provider has a clearly defined risk profile
  - Lower level units provide midwife-led care to low risk patients
  - Clear transfer agreements are in place in case of complications
- In Sweden, **emergency care is delivered for a large part by sub-acute units**, similar to NHS walk-in centres and minor injury units
  - *Närakut* provide non-life threatening emergency care in evenings and the weekend
  - They are usually co-located at community hospitals without an A&E, or regional health centres
  - Around half of these centres are private providers

Key players in the Swedish healthcare system

Payors

- 21 county councils and regional bodies are responsible for the funding and provision of health care services to their populations
- While there is mix of publicly and privately owned health care facilities they are generally publicly funded
  - Only 4% of the population has private voluntary health insurance
- The Swedish Social Insurance Agency administers social insurance and benefits
  - Sickness insurance, retirement pension, child and housing allowances
  - The Agency has a regional branch office in each county council that processes individual cases

Providers

- Primary care is at the centre of healthcare but does not gatekeep
  - There are around 1,100 primary care units
  - However, there is no formal system of gatekeeping by GPs
- Acute care is provided by county and regional hospitals
  - There are around 70 county-level hospitals
  - The 7 regional hospitals are often connected to universities
- The split between private and public providers differs across the country
  - Hospitals are mostly publicly owned, with 6 private hospitals
  - While in Stockholm and some other areas half of all primary care units are private, in the rest of the country there are only a few

Regulators

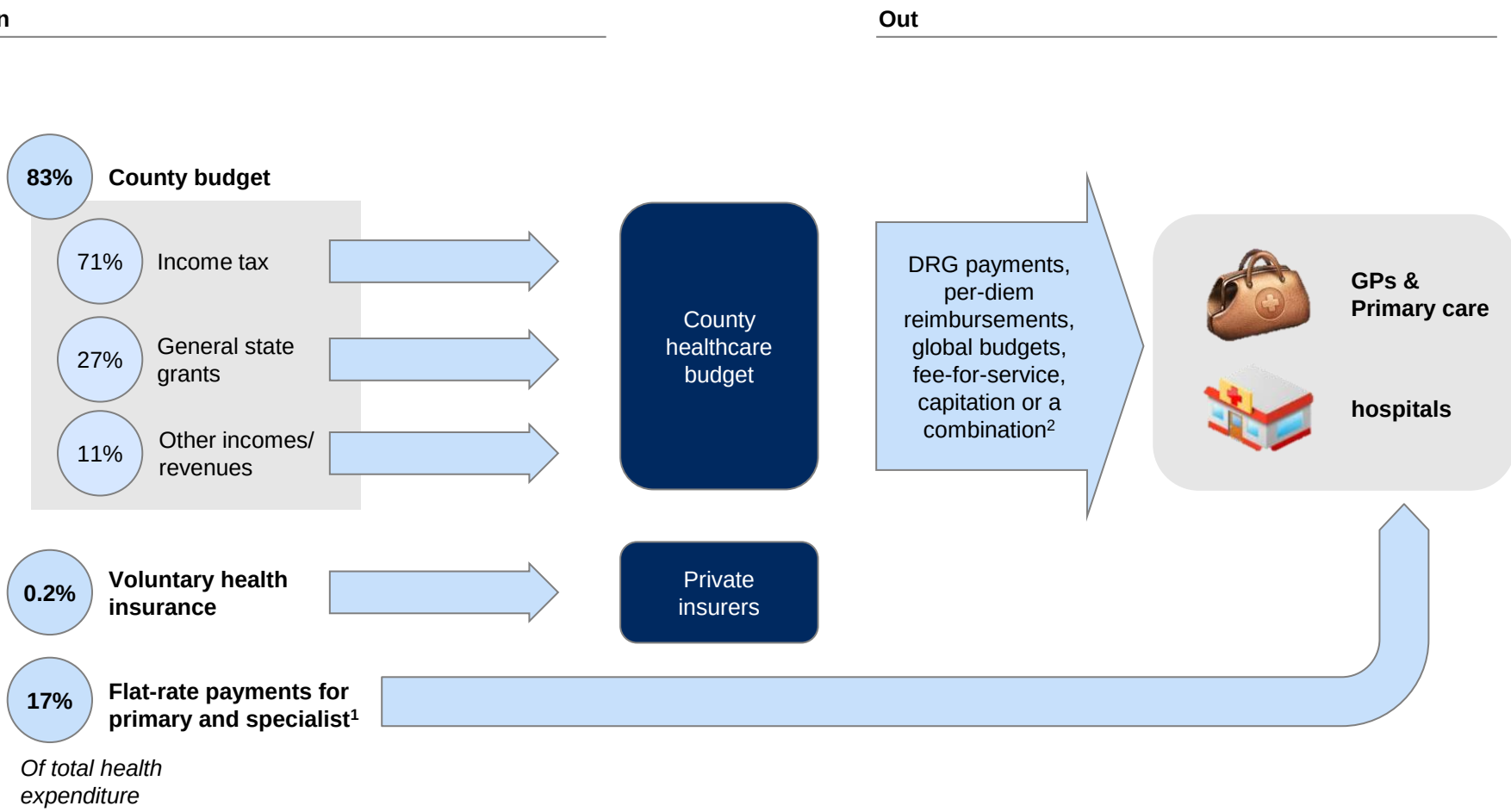
- The National Board of Health and Welfare - develops norms and standards, provides support, supervises that these are observed through data collection and analysis, and disseminates information
- Council on Technology Assessment in Health Care (SBU) – reviews and promotes cost-efficient healthcare technologies

Commissioners

- Funding and provision of services lies largely with the county councils and regions
- The state, through the Ministry of Health and Social Affairs, is responsible for overall health care policy

SOURCE: European Observatory on Health Systems and Policies: Health Systems in Transition: Sweden, 2012

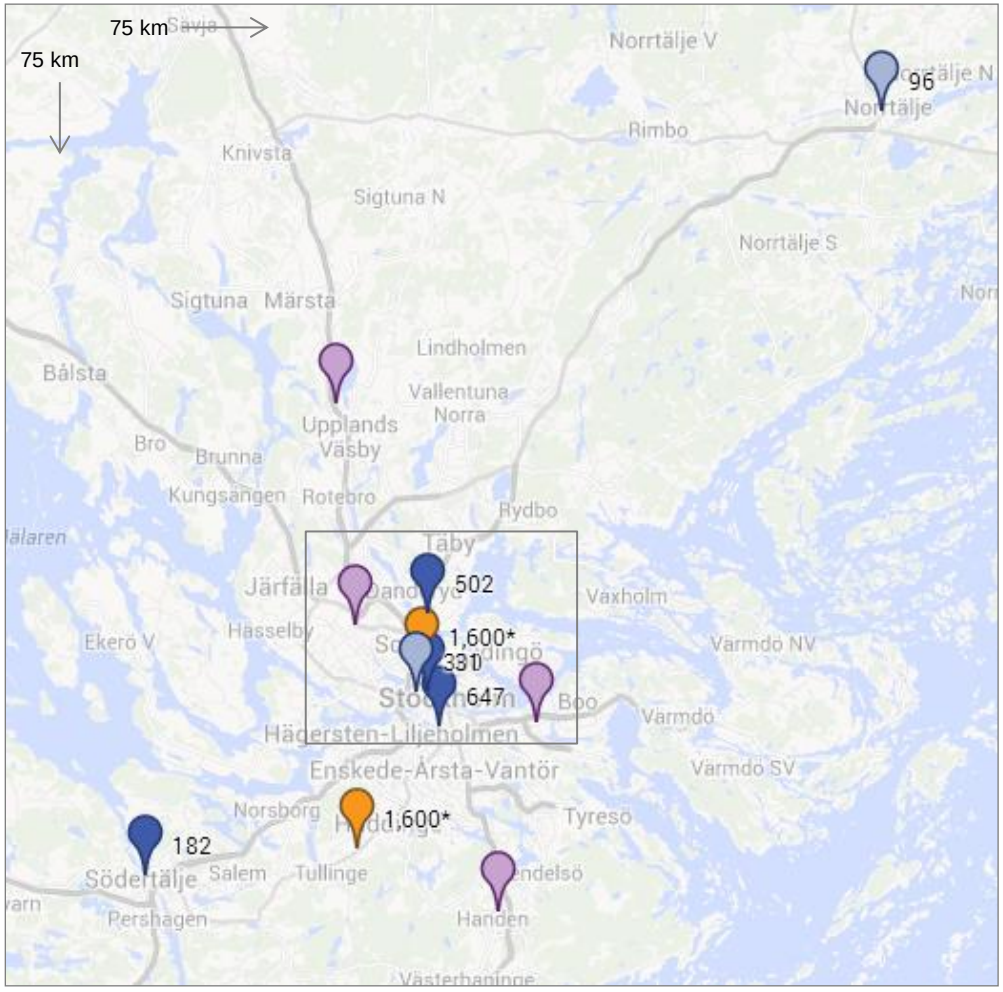
Financial model in Sweden

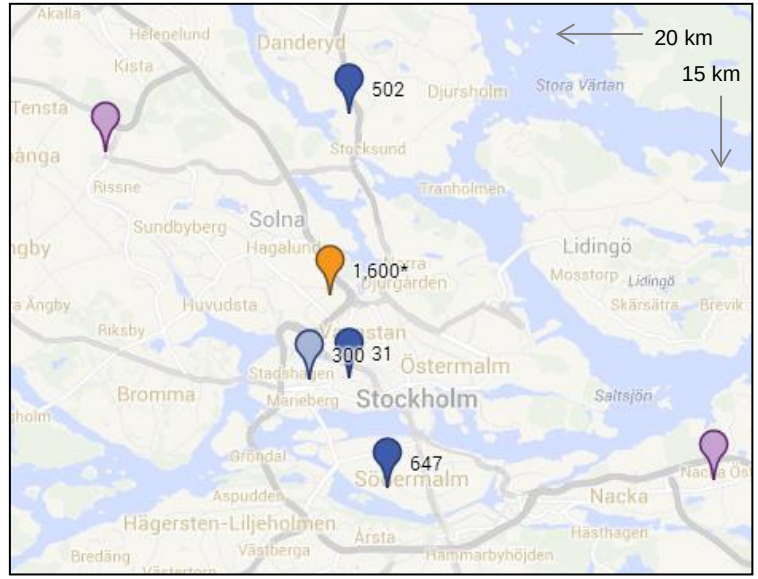


1 Capped at SEK1,100/ £100 per 12 months
2 The county council decided on the mechanism of payment, and these vary across the country

SOURCE: Victoria Department of Health, Commonwealth Fund: International profiles of health care systems, 2011

The provider landscape in Stockholm County





- University hospital
- Public hospital
- Private hospital
- Community hospital/treatment centre
- # Bed capacity
- #* Bed capacity shared between locations

Population: 2.1m

SOURCE: Hospital websites

Executive summary – Germany

The pattern of acute hospital provision in Germany is evolved quite differently to the NHS model. There is a much clearer separation between inpatient and outpatient care, with the majority of outpatient care delivered from physician chambers located and managed completely separately from the acute hospital sector. Within the hospital landscape, there are a larger proportion of specialist providers focused on a single or small set of service lines.

- In Germany, **configuration of care is driven by hospitals and regional Ministries of Health**:
  - There are a mix of private for profit, not-for-profit, and public hospitals (approximately one third of each), but public hospitals tend to be larger with broader service offerings, accounting for 50% of beds
  - Some private hospitals operate as relatively large chains, and chain economics drive patterns of service delivery and configuration decisions
  - Local Ministries of Health are responsible for hospital planning in each region, and just beginning to address issues of quality and volume/outcomes, driven in large part by economic constraints (pressure from the Sickness Funds)
  - Hospitals are primarily paid through a DRG system, though outpatient care is still largely fee-for-service
- **Standards are driven through a combination of mechanisms** including accreditation and specialist designation, oversight and clinical guidance from professional bodies, payor commissioning power, patient choice, and internal management processes. Physician clinical independence is also a factor.
- We are **beginning to see signs of quality issues driving centralisation of services**
  - Pressure is coming from multiple stakeholders including payor organisations and the hospitals and hospitals chains themselves
  - Service lines affected include obstetrics, trauma, nephrology and dialysis, cancer care, and geriatrics.
- The mix of hospitals includes major general acute hospitals and AMCs and a **range of much smaller specialist providers** focused on specific service lines
- Some **service lines are delivered in a quite different model** to the NHS:
  - Ambulance providers deliver a much more comprehensive and specialist service than their UK counter-parts with physicians located in the ambulance for major emergency cases
  - A lot of A&E care is provided by specialists on call to the Emergency Department with far more rapid (or immediate) transfer to specialty wards/facilities within the hospital
- Many other service lines are relatively more similar to the NHS model
  - Most acute hospitals provide obstetric and paediatric inpatient care

Key players in the German healthcare system

Payors

- As of 2009 it is compulsory for all German citizens and long-term residents to have health insurance
  - For those earning less than €49,500 per year, (£40k) insurance is provided by the public statutory health insurance scheme (GKV), operated by 150 competing sickness funds
  - People earning more than €49,500 have the option of purchasing private health insurance, but only 15% choose this option
- Germans are free to choose their insurer and cannot be rejected
- Both general health insurance as well as long-term care insurance is paid from employee and employer contributions

Providers

- Specialist practices and clinics provide a significant part of specialist care
  - Ambulatory general as well as specialist care is often provided by primary care physicians
  - 50% of specialists work outside of hospitals
  - Hospitals have only recently been legally permitted to provide outpatient services
- While formal gatekeeping by GPs is limited, it is being encouraged to cut costs
- There are three types of hospital ownership: public, private not-for-profit, and private for-profit, each representing approximately one third of hospitals (but 50% of beds are in public hospitals)

Regulators

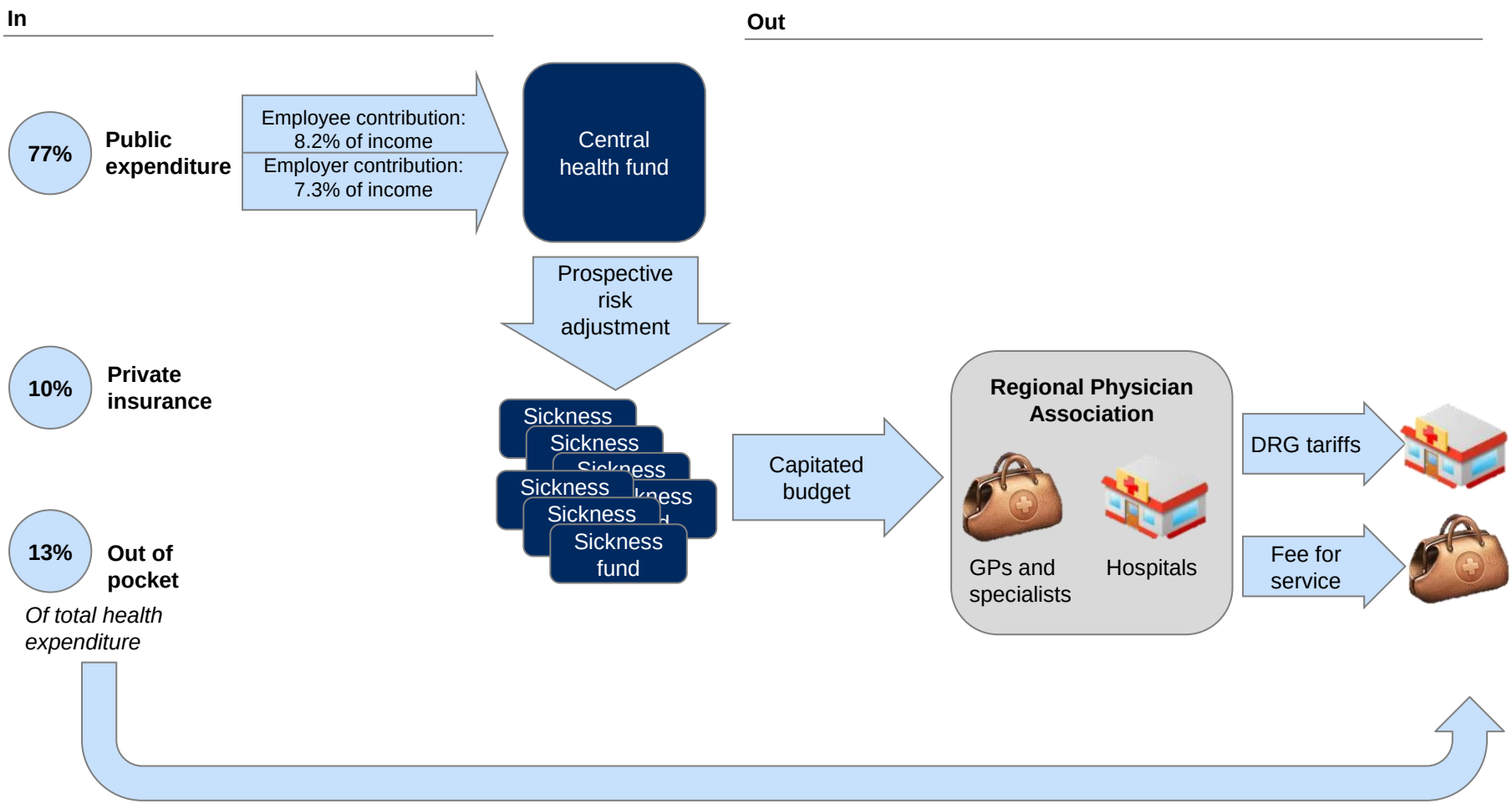
- The ministries in each Land (state) are responsible for creating laws, supervising subordinate authorities, and financing investment in the hospital sector
- Professional 'chambers' for physicians at the Länder level are responsible for secondary training and setting professional, ethical and community relations standards. They are under increasing pressure to address quality assurance more vigorously

Commissioners

- Within each Land there are sub-authorities in charge of health promotion and planning
- Primary care and specialist care is delivered by physicians who are, by law, mandatory members of regional Associations. These Associations negotiate contracts with sickness funds

SOURCE: Civitas: Healthcare systems: Germany

Health system financing model



SOURCE: Civitas: Healthcare systems: Germany

While specialised care is centralised in a smaller number of hospitals, almost all hospitals offer general care like internal medicine and surgery

Schleswig Holstein hospitals with 50+ beds

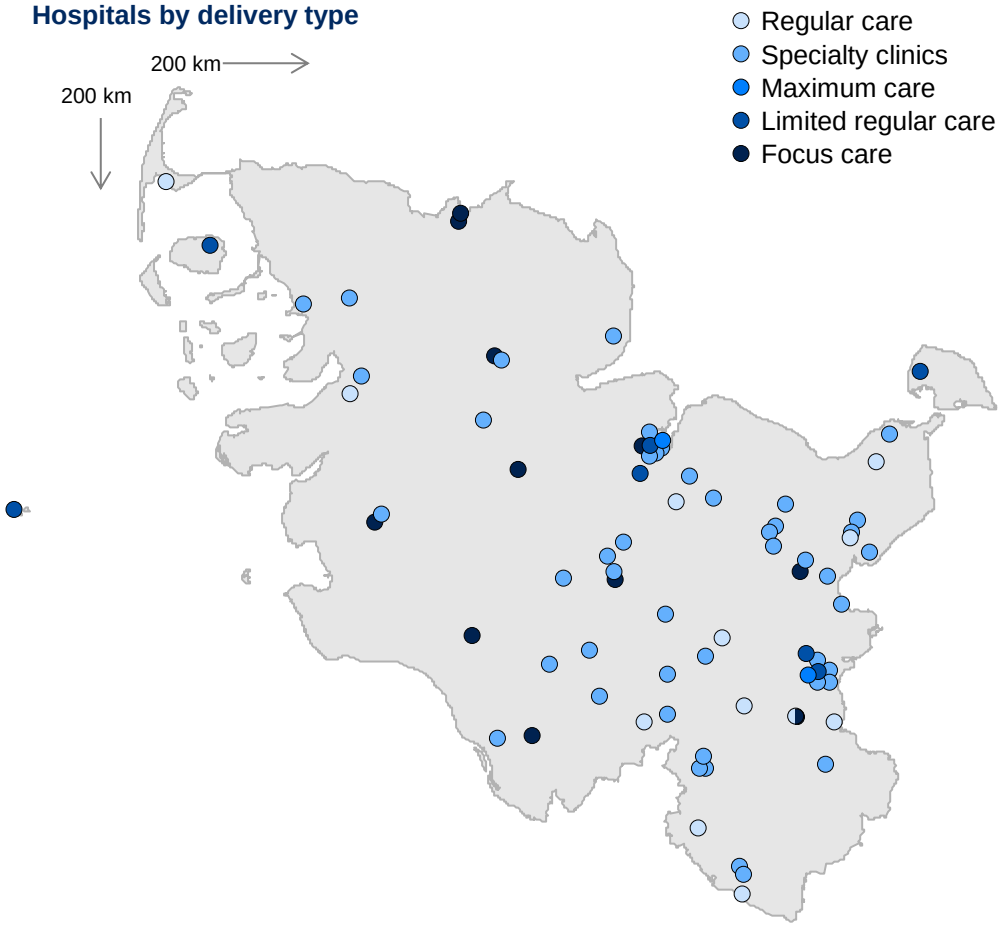
	Universitätsklinikum Schleswig-Holstein Campus …	Universitätsklinikum Schleswig-Holstein Campus …	Regio Kliniken	Imland Kliniken Rendsburg, Eckernförde	Westküstenklinikum Brunsbüttel und Heide	Klinikum und Seniorenzentrum Itzehoe	Friedrich-Ebert-Krankenhaus Neumünster	Städtisches Krankenhaus	Diakonissenkrankenhaus	Klinikum Nordfriesland gGmbH	Klinik Husum	Helios Ostseeklinik Damp GmbH	Helios Klinik Schleswig	Segeberger Kliniken GmbH	Sana Kliniken GmbH Krankenhaus Süd	Schön Klinik Bad Bramstedt	Klinikum Neustadt	Malteser Krankenhaus St. Franziskus Hospital	Krankenhaus Reinbek St. Adolf-Stift	Lubinus-Clinicum	Paracelsus Klinik Henstedt-Ulzburg GmbH	Sana Klinik Eutin	DRK-Krankenhaus Mölln-Ratzeburg	Asklepios Klinik Bad Oldesloe	Klinik Preetz Kreiskrankenhaus des Kreises Plön	Sana Klinik Oldenburg	Asklepios Nordseeklinik Westerland GmbH	AK Segeberger Kliniken	HELIOS Agnes Karll Krankenhaus Bad Schwartau	St. Elisabeth Krankenhaus	Medizinische Klinik Borstel	Marienkrankenhaus Lübeck	Helios Klinik Kiel	Park-Klinik
# beds	1,227	1,078	895	719	703	633	596	574	531	433	401	371	368	356	349	324	317	313	263	211	207	184	179	169	139	114	94	93	86	71	63	50	50
Ophthalmology	✓	✓	✓	✓	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗
Other surgery	✗	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✓	✓
Vascular surgery	✗	✗	✗	✓	✓	✗	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗
Thoracic surgery	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Traumasurgery	✓	✓	✓	✗	✓	✓	✓	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Visceral surgery	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Gynecology, Obstetrics	✓	✓	✓	✗	✓	✓	✗	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✓	✗	✓	✓	✓	✓	✓	✗	✗	✗	✓	✗	✓
Gynecology	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗
Obstetrics	✓	✗	✗	✓	✗	✗	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Ear, nose, throat (ENT)	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✓	✗	✗	✗	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓
Dermatology	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗	✗	✗
Heart surgery	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Thoracic surgery	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Internal medicine	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✓	✗	✓
Angiology	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Endocrinology	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Gastroenterology	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Hematology & internal oncology	✓	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Cardiology	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Nephrology	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Pneumology	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Rheumatology	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Geriatrics	✗	✗	✓	✓	✓	✓	✓	✓	✗	✓	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗
Pediatric surgery	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Pediatrics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Pediatric Cardiology	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Neonatology	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Oral & maxillofacial surgery	✓	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗	✗	✓	✓	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✓	✗	✗	✓	✗
Neurosurgery	✓	✓	✗	✗	✓	✗	✓	✗	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗	✗	✓	✗
Neurology	✓	✓	✓	✓	✓	✓	✓	✗	✓	✗	✓	✓	✓	✗	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Nuclear medicine	✓	✓	✗	✗	✓	✗	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
Orthopaedics	✓	✓	✓	✗																										✗	✗	✓	✗
Rheumatology	✗	✗	✗	✗																										✗	✗	✗	✗
Plastic surgery	✗	✓	✗	✗																										✗	✗	✗	✗
Radiotherapeutics	✓	✓	✗	✗																										✗	✗	✗	✗
Urology	✓	✓	✓	✓																										✗	✓	✓	✗

- Most non-specialized clinics still offer obstetrics, private owned opted out
- Most but not all clinics with less than 300 beds are specialized, e.g., psychiatry, geriatrics, orthopedics
- There exist hospitals with as few as 63 beds that offer the normal spectrum
- Clinics with 50 beds and less are typically specialized or serving small German isles

SOURCE: Federal Statistical Office

Hospitals in Schleswig-Holstein are divided into 5 delivery types

Hospitals by delivery type



Population: 2.8m

Limited regular care
- Basic internal medicine and surgical services
- First point of contact, not necessarily 24/7

Regular care
- Permanent departments[1] of internal medicine, surgery, anesthesia, gynecology and obstetrics
- Further temporary beds run by outpatient physician possible
- 24/7 interdisciplinary emergency and anesthesia care
- Sufficient internal and external radiology and laboratory services available

Focus care
- Permanent departments and educational mandate in
  - internal medicine (gastroenterology, metabolic diseases, hematology, oncology, cardiology, nephrology, hemodialysis and pulmonology), visceral and vascular surgery, trauma/ orthopedic, gynecology, obstetrics, pediatrics (24/7 intensive care)
  - 24/7 anesthesia and intensive care
  - radiological diagnostics and therapy; nuclear medicine; pathology; histology and self-owned laboratory services
- Multiple local hospital can create network to fulfill focus care requirements

Maximum care
- Full spectrum of a focus hospitals and additional services in: transplantation surgery, nephrology, thoracic/cardiovascular surgery, ophthalmology; dermatology; sexually transmitted diseases; throat, nose and ear diseases; oral and maxillofacial surgery; neurosurgery; neurology; nuclear medicine; trauma/orthopedics; radiotherapy; urology
- Only university clinics in Schleswig-Holstein

Specialty clinics
- Only one specific medical discipline or on type of disease
- Only delivery type that is not a 'general hospital'

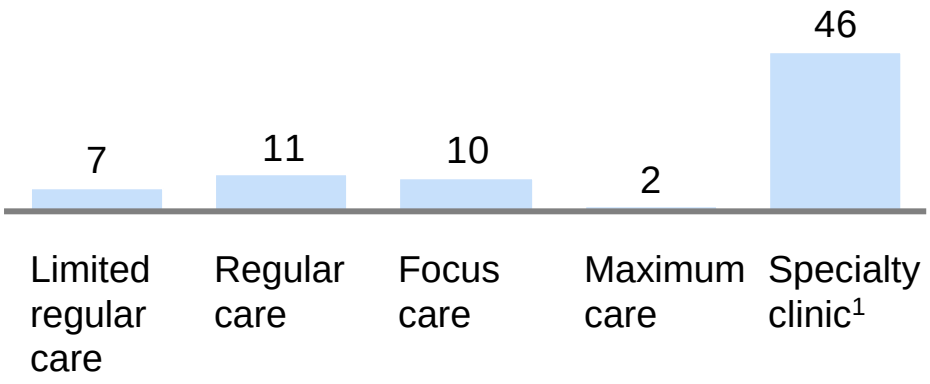
1 Self run in opposition to temporary departments only run by outpatient physicians

SOURCE: Hospital plan Schleswig-Holstein

Most hospitals in Schleswig-Holstein are classified as specialty clinics but general healthcare is provided by regular and focus hospitals

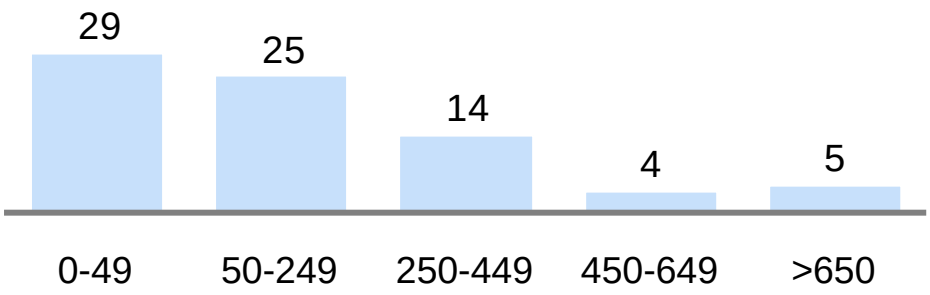
Hospitals by delivery type

Count



Hospitals by size

Count



- Regional Ministry of Health plans hospital beds by department
- Currently, general hospital planning without linkage to number of cases in a specific procedure or quality outcome
- First moves towards centralization are in progress to save resources, i.e., coordinated care supply in
  - Perinatal care (level 1 and 2, focus, regular obstetric department)
  - Trauma centers
  - Nephrology treatment and dialysis
  - Oncological and breast cancer centers
  - Diabetes treatment
  - Geriatrics
  - Palliative care
  - Early neurological rehabilitation

Note: Figures include single-specialty hospitals like phychiatric hospitals, that have been excluded in the overview pages
1 Specialty hospitals cover primarily geriatrics, psychiatry and psychosomatics, orthopaedics and also include dayclinics

SOURCE: Federal Statistical Office; hospital plan Schleswig-Holstein

Executive summary – Arkansas

The acute hospital landscape in Arkansas is very different to the NHS. Around one third of overall hospital revenues derive from privately insured patients. However most providers are dependent to some degree on publicly-funded (Medicare/Medicaid) patients for their survival. The system of payments sustains a large number of very small providers which are required to offer an emergency "stabilise and transfer" service 24/7.

- In Arkansas **configuration of care is driven by the incentives** that operate in the market place with very limited direct system-level oversight or planning. However, this does not mean that government policies and interventions do not play an important role in determining the landscape of acute provision:
  - The CMS Medicare/Medicaid payment model provides higher rates and/or "costs plus" payments for providers that are more than 15-35 miles (or 45 mins driving time) from the next nearest provider, or meet other designation criteria for "medically necessity". The most common category of subsidy is the "Critical Access Hospitals", but there are also other mechanisms for rural hospitals to receive additional public support.
  - In order to qualify as a Critical Access Hospital, the provider must have ≤25 acute beds and an acute ALOS of <4 days; they must also offer a basic 24/7 emergency service that providers assessment, stabilisation, treatment or transfer.
  - **The interplay of requirements and rewards in the public funding model has led to a large number of very small acute hospitals, relative to the NHS.**
- State-level hospital accreditation requirements, and the specialist certification (e.g. through The Joint Commission) process, are the main driver of standards, supplemented by Board-certification of physicians and equivalent credentialing processes for other parts of the clinician workforce, and internal hospital quality management processes. In addition to this, the state government, and state-wide institutions, have begun to develop new strategies to improve quality and efficiency:
  - An **episode-based payment model** is being introduced in selected areas of care – including maternity care – which provides shared-savings and sets minimum quality requirements.
  - The main state-level AMC (University of Arkansas Medical System) has developed a **cross-state telestroke network** which allows thrombolysis to be delivered even in the smallest Critical Access providers. This use of technology to spread expertise over a large number of sites can be seen as an alternative to the NHS model of centralisation.
- Approximately **one third of acute sites in Arkansas are connected via hospital chains** (or systems, as they are called locally) where standards, pathways, workforce and economics are organised and delivered across multiple sites
- **Many providers offer a range of services including long term care** (equivalent to residential care and residential nursing care in the UK), home health, and rehabilitation services, in order to create the level of demand and revenues required to sustain an acute site serving a relatively small catchment population

Key players in the Arkansas healthcare system

Payors

- The USA has a very mixed model of insurance coverage, with public funds covering the elderly, disabled and low income groups through CMS-administered Medicare and Medicaid programs managed by federal and/or state governments
- In Arkansas, many people eligible for expanded Medicaid receive fully-subsidised private insurance through the health insurance exchange
- Around half of the population are coved by private medical insurance (42% in Arkansas which is a relatively more deprived region), most often arranged by the employer. There are two main types:
  - Preferred Provider Organisations (PPOs) - 56%
  - Health maintenance organizations (HMOs) - 25%
- One in six had no health insurance in 2013 – however this number should fall in 2014 as the Affordable Care Act comes into force

Providers

- As with health insurance, the provision of health care is highly fragmented with a mix of public and private (for and not-for profit) providers at all levels, from very small <50 bed providers to AMCs, and a mix of smaller and larger chains and independent one-site providers
- For the purposes of reimbursement, the CMS categorizes hospitals into service groups which affect levels of reimbursement available (see following pages)
- Commercial insurers negotiate local agreements with providers, particularly in PPOs and HMOS
- Most physicians are self-employed or part of group practices, though a proportion are salaried employees

Regulators

- Regulation of the health system is complex and multi-layered, compared to the NHS:
  - Since 2011, CMS has been responsible for regulating private insurers, with minimum standards set by the Department of Labor ERISA regulations
  - Physicians, and other professionals, are regulated through a process of state-level Board certification; CMS also sets similar requirements; and PPOs and HMOS will also have a credentialing process
  - Hospitals are accredited by The Joint Commission certification processes, which determine eligibility for reimbursement, CMS and other legislation[1]

Commissioners

- State and federal governments usually play a very limited role in overall system oversight and planning and configuration choices – though the incentives available (through differential reimbursement etc) have had an impact of the service provision available, e.g. the abundance of very small Critical Access providers
- Currently, the State of Arkansas is leading a consortium of private and public payors to introduce a system of episode-level bundled payments for acute services (spanning hospital and non-hospital settings) through an accountable provider model, with shared savings and quality/outcomes requirements. In parallel, they are introducing Patient-Centered Medical Homes for primary care, and a new “health home” model for patients with behavioural needs

Note: CMS = Center for Medicare and Medicaid Services; ERISA = Employee Retirement Income Security Act;
1 For example, the Emergency Treatment and Active Labor Act (EMTALA) requires all CMS-reimbursed hospitals to provide emergency assessment, stabilization, treatment or transfer

SOURCES: Rice T et al, Health Systems in Transition, Vol 15(3), 2013, United States of America: health system overview, European Observatory on Health Systems and Policy; Center for Medicare and Medicaid Services

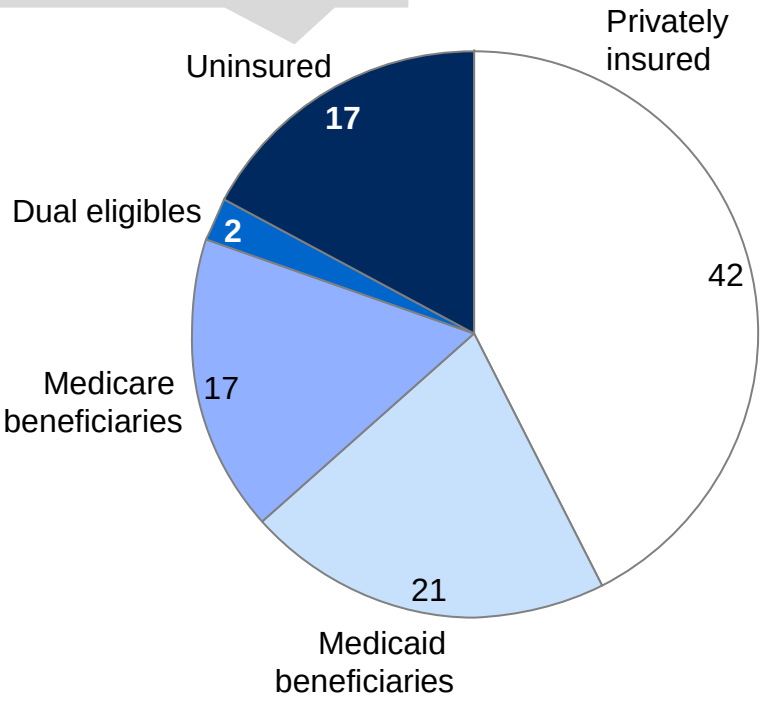
Health system financing model

Medicare - Elderly
Medicaid - Low Income

Population by health insurance coverage, 2013
%

100% = 2.9m (Arkansas population)

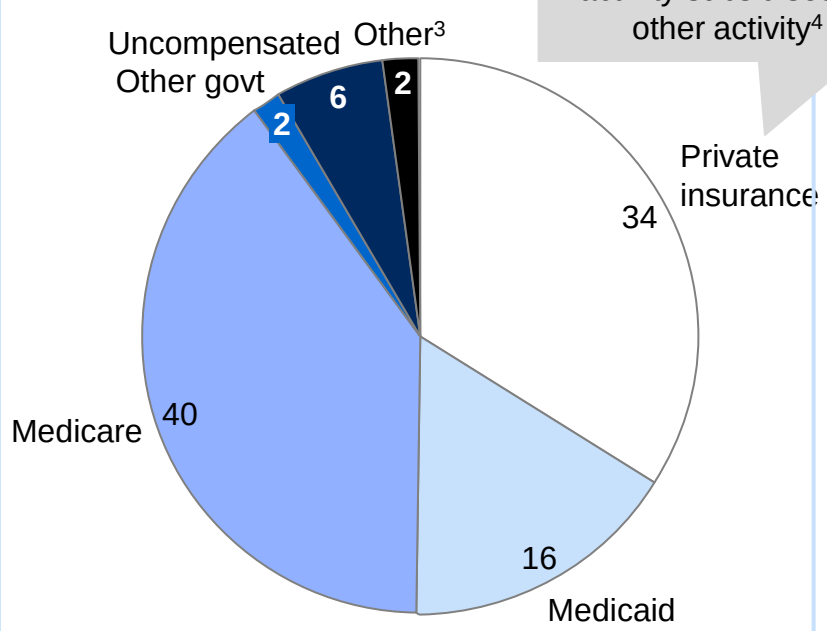
% uninsured should fall with implementation of ACA[1]



Hospital income by source of funds, 2012
%

100% = $1,076 billion[2] (All USA)

Privately insured activity subsidises all other activity[4]



1 ACA = Affordable Care Act
2 Total spending on hospital care (physician services excluded) adjusted for uncompensated care and other income
3 Income from non-clinical sources including car parking, cafeterias, and non-patient income sources
4 See AHA TrendWatch Trends in Hospital Financing (link below)

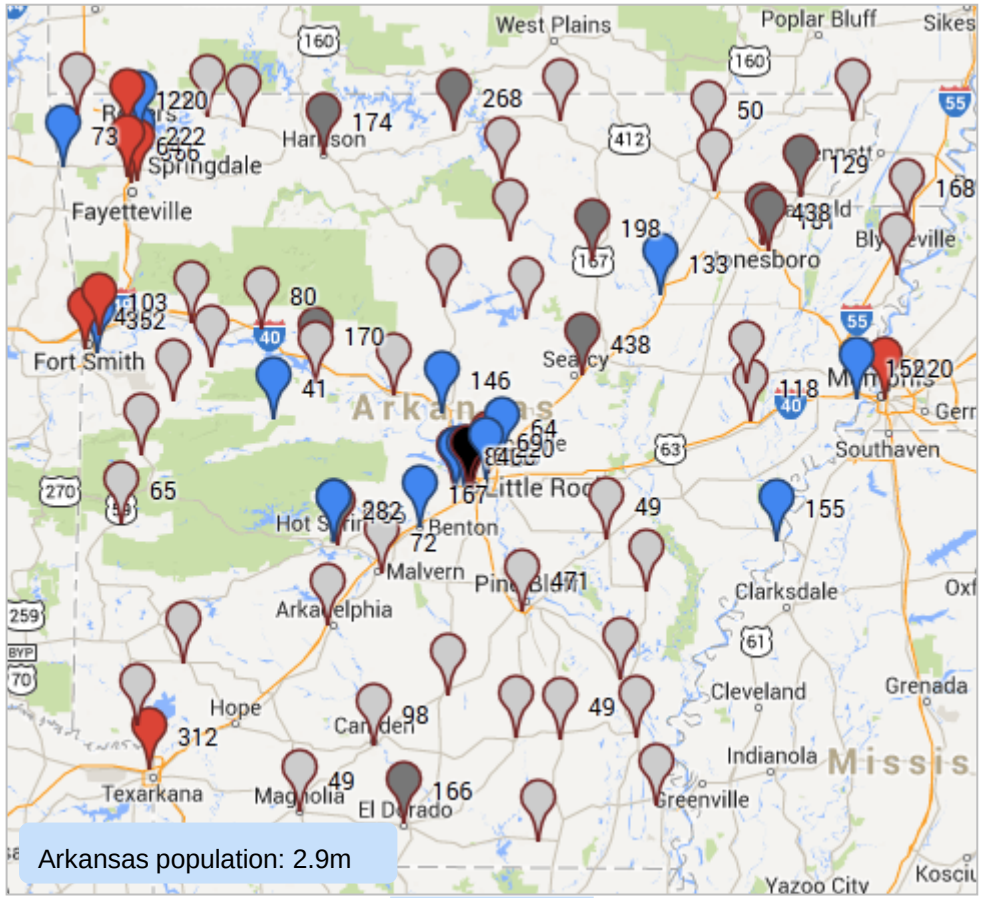
SOURCES: American Hospital Association, TrendWatch Chartbook http://www.aha.org/research/reports/tw/chartbook/index.shtml ; HealthLeaders InterStudy (for population by insurance coverage tpye)

Financial subsidies for rural acute hospitals

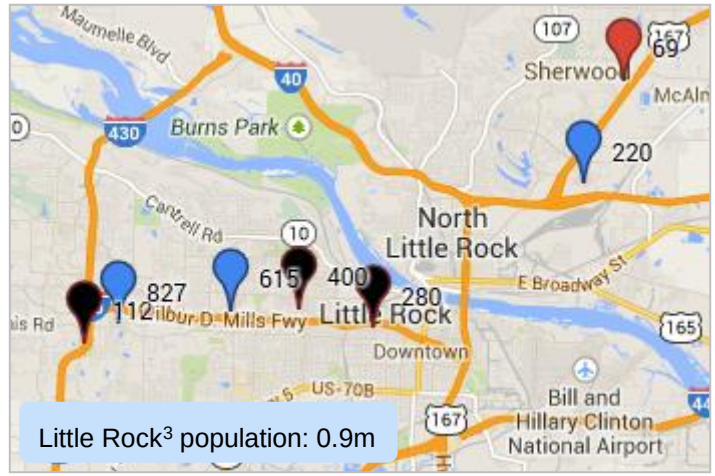
Hospital category	Eligibility requirements	Subsidies available
Critical Access Hospitals (CAH)	▪ 15-35 miles to next nearest acute provider (dependent on terrain and road network) or with state-certified designation as a "necessary provider" ▪ 24/7 emergency service provided by on-site or on-call staff (with specific response times for on-call staff) ▪ ≤25 acute beds and ≤20 rehabilitation or psychiatric beds ▪ Average length of stay ≤96 hours (for acute beds) ▪ Compliant with CMS Code of Participation requirements	▪ Medicare IP and OP at 101% of reasonable costs ▪ If billing rights assigned to hospital, physician services at 115% of fee schedule and 115% x 110% if designated Health Professional Shortage Area
Sole Community Hospitals (SCH)	▪ 25-35 miles, or travel time ≥45 mins, from next nearest acute provider ▪ ≤25% of admitted patients have not been admitted to another hospital (unless the hospital has <50 beds and services required were not available locally)	▪ Highest available CMS prospective payment rate ▪ If admissions fall more than 5% in a single year, eligible for compensation to cover fixed costs
Rural Referral Centers (RRC)	▪ In a rural area and: – ≥275 acute inpatient beds – ≥50% of Medicare patients are referred by other hospitals or physicians not on the hospital staff – ≥60% of Medicare patients live ≥25 miles away – Meets case-mix complexity thresholds	▪ CMS "disproportionate share" adjustment of up to 5.25% above base rate ▪ 0.6% adjustment for every percentage point that their disproportionate patient % exceeds threshold
Medicare-Dependent Hospitals (MDH) *NB: category to be phased out in 2015*	▪ ≤100 acute inpatient beds ▪ ≥60% of patients days/admissions attributable to Medicare beneficiaries	▪ Paid at Federal rate plus 75% of hospital-specific rate if higher ▪ Eligible for low volume hospital payment adjustment

SOURCES: Department of Health & Human Services, Medicare Learning Network, http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/MLN-Publications.html

The provider landscape in Arkansas, USA



450 km



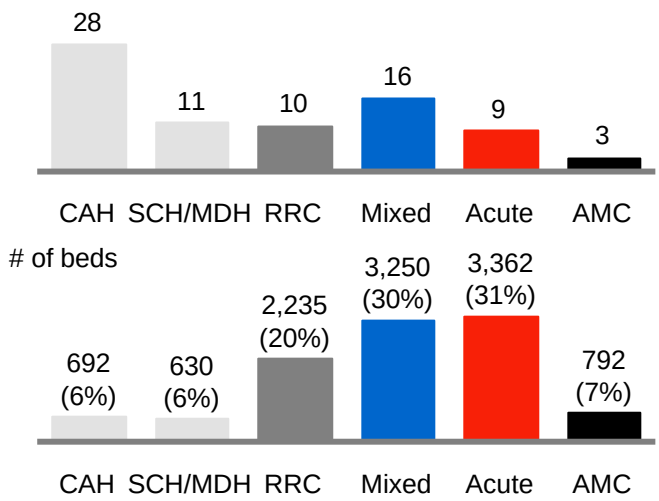
25 km

- Critical access hospital (CAH)[1]
- Rural referral centre (RRC)
- AMC/specialist/tertiary
- Mixed use hospital[2]
- Acute hospital
- # beds

State lines - Mississippi forms east state-boundary

Note: psychiatric and long term care/ skilled nursing facilities without acute provision are excluded (2221 beds in total)

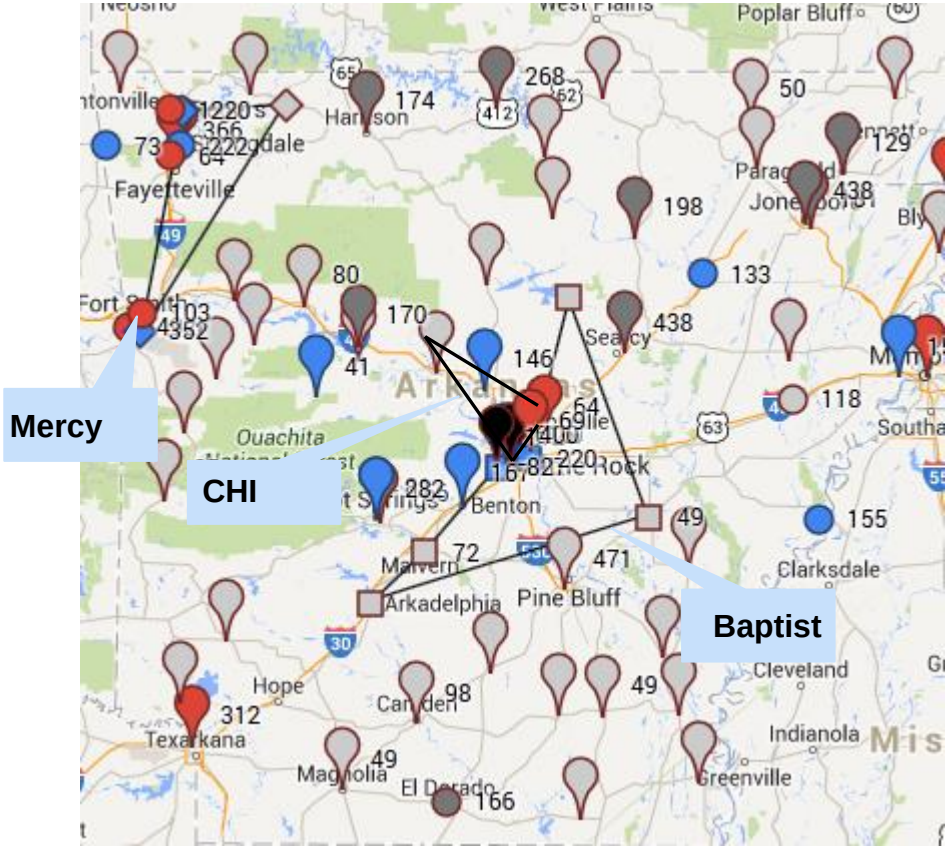
Arkansas acute providers by type



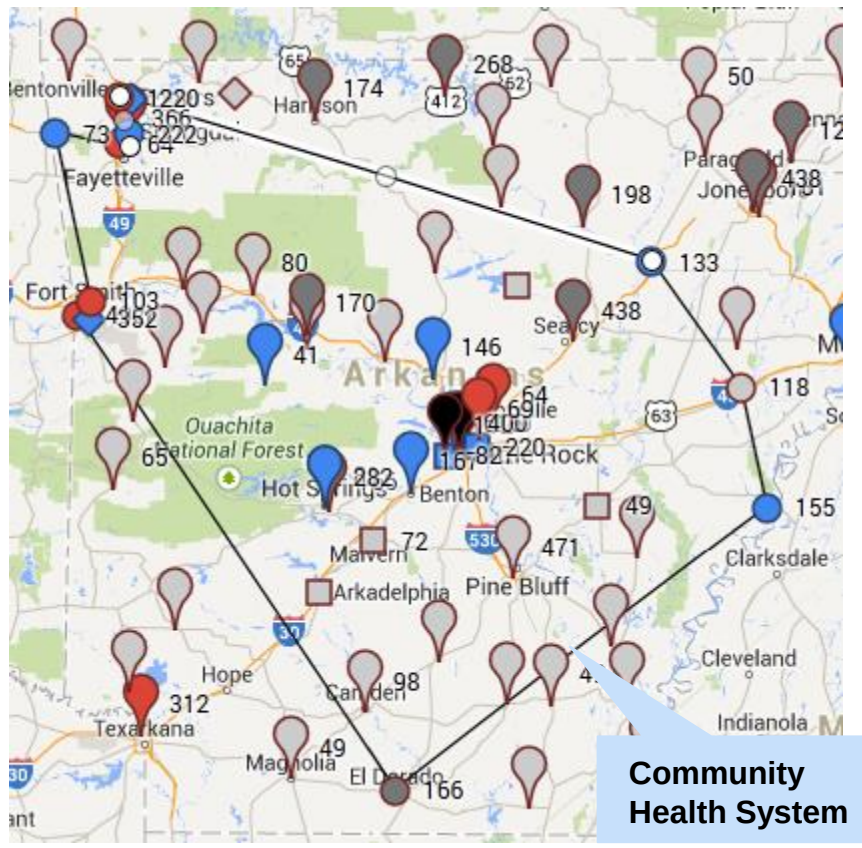
1 Critical access plus other rural CMS-supported categories, Sole Community Hospital (SCH) and Medicare-Dependent Hospital (MDH). ≤25 beds unless otherwise stated
2 Site combines a mix of acute, long term nursing care, rehabilitation and/or mental health
3 Greater urban area (combined Little Rock/North Little Rock Metropolitan Statistical Area)

There are four provider chains operating in Arkansas

Not-for-profit hospital chains



Corporate (for profit) hospital chain



- 32% of Arkansas's acute hospitals belong to chains
- Chains often have a geographic focus and religious affiliation

	# of acute sites (AR)
– Baptist Health System – not-for-profit - Arkansas only	6
– Mercy – not-for-profit – active in 4 states	6
– Catholic Health Initiative (CHI) – not-for-profit – active in 19 states	3
– Community Health System – corporate for profit – active in 29 states	10

- Critical access hospital[1]
- Rural referral centre
- AMC/specialist/tertiary
- Mixed use hospital[2]
- Acute hospital

1 Critical access plus other rural CMS-supported categories, SCH and MDH
2 Site combines a mix of acute, long term nursing care, rehabilitation and/or mental health
SOURCE: Arkansas Hospital Association, Arkansas Hospitals, Summer 2013; organisation websites

There are 77 acute hospitals in Arkansas offering a 24/7 emergency service – equivalent to 1 per 38,000 population

Name	Affiliation	Ownership type	Type	Beds (#)	Type	Services
Baptist - Little Rock	Baptist	PNP	Medical-Surgical	827	Mixed	SNF/Psych/HH
TN Regional Medical Center		PNP	Medical-Surgical	620	Acute	
St Vincent Infirmary	Catholic Health Initiative	PNP	Medical-Surgical	615	Mixed	Psych/HH
Sparks Regional Medical Center	Community Health	Corporate	Medical-Surgical	492	Acute	HH
Jefferson Regional		PNP	Medical-Surgical	471	Acute	SNF/Psych/Rehab/HH
St Bernards		PNP	Medical-Surgical	438	RRC	SNF/Psych/HH
White County Medical Center		PNP	Medical-Surgical	438	RRC	Psych/Rehab/HH
UAMS		State	Medical-Surgical	400	AMC/Tertiary	
Washington Regional medical Center		PNP	Medical-Surgical	366	Acute	HH
Mercy Hospital - Fort Smith	Mercy	PNP	Medical-Surgical	352	Mixed	SNF/Rehab/HH
Christus St Michael		PNP	Medical-Surgical	312	Acute	
National Park Medical Center		PNP	Medical-Surgical	282	Mixed	Psych/Rehab/HH
Arkansas Children's Hospital		PNP	Medical-Surgical	280	AMC/Tertiary	Rehab
Baxter Regional		PNP	Medical-Surgical	268	RRC	Psych/Rehab/HH
Northwest Medical Center - Springdale	Community Health	Corporate	Medical-Surgical	222	Mixed	Psych/Rehab/HH
Baptist - North Little Rock	Baptist	PNP	Medical-Surgical	220	Mixed	Rehab/HH
Mercy - North West Arkansas	Mercy	PNP	Medical-Surgical	220	Acute	Psych/HH
White River Medical Center		PNP	Medical-Surgical	198	RRC	SNF/Psych/Rehab/HH
North Arkansas Regional Medical Center		PNP	Medical-Surgical	174	RRC	SNF/HH/Psych
St Mary's Regional		Corporate	Medical-Surgical	170	RRC	Psych/Rehab/HH
Great River Medical Center		County	Medical-Surgical	168	Acute	
Saline Memorial Hospital		PNP	Medical-Surgical	167	Mixed	Psych/Rehab/HH
Medical Center of South Arkansas	Community Health	Corporate	Medical-Surgical	166	RRC	Rehab
Mercy Hospital - Hot Springs	Mercy	Corporate	Medical-Surgical	166	RRC	SNF/Rehab/HH
Helena Regional Medical Center	Community Health	Corporate	Medical-Surgical	155	Acute	SB/Rehab/HH
Crittenden Regional Hospital		PNP	Medical-Surgical	152	Mixed	Rehab/HH
Conway Regional Medical Center		PNP	Medical-Surgical	146	Mixed	Psych/Rehab/HH
Harris Hospital	Community Health	Corporate	Medical-Surgical	133	Acute	SB/Psych
Arkansas Methodist		PNP	Medical-Surgical	129	RRC	SB/Rehab/HH
Northwest Medical Center	Community Health	Corporate	Medical-Surgical	128	Acute	HH
Forrest City Medical Center	Community Health	Corporate	Medical-Surgical	118	SCH/MDH	Psych/HH
North Metro Medical Center		Corporate	Medical-Surgical	113	Mixed	Psych/Rehab/HH
Arkansas Heart Hospital		Corporate	Medical-Surgical	112	Tertiary	
Summity Medical Center	Community Health	Corporate	Medical-Surgical	103	Acute	
Ouachita County Medical Center		PNP	Medical-Surgical	98	SCH/MDH	SB/SNF/Psych/Rehab/HH
NEA Medical Center		PNP	Medical-Surgical	88	RRC	
Levi Hospital		PNP	Medical-Surgical	81	Mixed	Psych/Rehab
Johnson Regional Medical Center		PNP	Medical-Surgical	80	SCH/MDH	SB/SNF/Psych/Rehab/HH
Siloam Springs Memorial	Community Health	Corporate	Medical-Surgical	73	Mixed	SB

Name	Affiliation	Ownership type	Type	Beds (#)	Type	Services
HSC	Baptist	PNP	Medical-Surgical	72	SCH/MDH	Psych/HH
St Vincent Medical Center	Catholic Health Initiative	PNP	Medical-Surgical	69	Acute	
Mena Regional Health System		City	Medical-Surgical	65	SCH/MDH	SB/Psych/Rehab
Willow Creek Women's Hospital	Community Health	Corporate	Medical-Surgical	64	Acute	
Five Rivers Medical Center		PNP	Medical-Surgical	50	SCH/MDH	Psych/HH
Magnolia Regional		City	Medical-Surgical	49	SCH/MDH	SB/HH
Drew Memorial		County	Medical-Surgical	49	SCH/MDH	SB/HH
Baptist - Stuttgart	Baptist	PNP	Medical-Surgical	49	SCH/MDH	SB
Chambers Memorial Hospital		PNP	Medical-Surgical	41	Acute	SB/HH
Bradley County Medical Center		PNP	Medical-Surgical	35	CAH	SB/Psych/HH
Baptist Health - Arkadelphia	Baptist	PNP	Medical-Surgical	25	CAH	SB/HH
Little River Memorial		County	Medical-Surgical	25	CAH	SB/HH
Mercy Hospital - Berryville	Mercy	PNP	Medical-Surgical	25	CAH	SB
Booneville Community		City	Medical-Surgical	25	CAH	SB/HH
Community Medical Center Izard County		PNP	Medical-Surgical	25	CAH	SB/HH
Ozark Health Medical Center		PNP	Medical-Surgical	25	CAH	SB/HH
Ashley County Medical Center		PNP	Medical-Surgical	25	CAH	SB/Psych/HH
River Valley Medical Center		Corporate	Medical-Surgical	25	CAH	SB/Psych/HH
DeWitt Hospital		PNP	Medical-Surgical	25	CAH	SB/HH
Delta Memorial Hospital		PNP	Medical-Surgical	25	CAH	HH
Dallas County Medical Center		County	Medical-Surgical	25	CAH	SB/HH
Ozarks Community Hospital		Corporate	Medical-Surgical	25	CAH	
Baptist Health - Heber Springs	Baptist	PNP	Medical-Surgical	25	CAH	SB/HH
Chicot Memorial		PNP	Medical-Surgical	25	CAH	SB/HH
McGeehee Hospital		PNP	Medical-Surgical	25	CAH	SB/HH
St Vincent Morrilton	Catholic Health Initiative	PNP	Medical-Surgical	25	CAH	SB/HH
Stone County Medical Center		PNP	Medical-Surgical	25	CAH	SB
SMC Regional		County	Medical-Surgical	25	CAH	SB/Psych
Mercy - Turner Memorial	Mercy	County	Medical-Surgical	25	CAH	SB
Piggott Community Hospital		City	Medical-Surgical	25	CAH	SB/HH
Fulton County Hospital		County	Medical-Surgical	25	CAH	SB
Lawrence Memorial		County	Medical-Surgical	25	CAH	SB
Cross Ridge Community		PNP	Medical-Surgical	25	CAH	SB/HH
Mercy - Waldron	Mercy	PNP	Medical-Surgical	24	CAH	SB
Eureka Springs Hospital		Corporate	Medical-Surgical	22	CAH	SB/HH
Physicians Specialty		Corporate	Medical-Surgical	20	Acute	
Howard Memorial		PNP	Medical-Surgical	20	CAH	SB/HH
Mercy - Paris	Mercy	PNP	Medical-Surgical	16	CAH	SB

Definitions

AMC	Academic Medical Centre
CAH	Critical Access Hospital
HH	Home Health
MDH	Medicare-Dependent Hospital
PNP	Private non-profit
RRC	Rural Referral Center
SB	Swing beds
SCH	Sole Community Hospital
SNF	Skilled nursing facility

SOURCE: Arkansas Hospital Association, Arkansas Hospitals, Summer 2013; hospital web sites

Executive summary – Victoria, Australia

Victoria is actively working to coordinate and configure care services across the state through frameworks, but this has not yet led to any real changes in the provider system. Generally, while there exist federal standards (i.e. the 4 hours A&E target) and configuration guidelines (i.e. definitions of maternity care tiers) this does not translate into actions, or hold direct consequences for the providers

- While there is a **clear move to centrally organise and configure care, this is not (yet) reflected** in the reality
  - The Department of Health of the State of Victoria has published a large number of frameworks around the configuration and standards of specific service lines: ICU, paediatrics, maternity, emergency surgery, stroke
  - However, these seem to be more for high-level guidance as little hospitals refer to the levels and standards set in the frameworks
- In Victoria, a **large number of private hospitals** provide acute services in additional to the public hospitals
  - 7 out of 12 acute hospitals are private, and private beds account for 40% of total acute beds
- A clear framework for **tiered delivery of maternity services exist but its implementation is limited**
  - The National Maternity Services Capability Framework defines 7 levels of maternity care and sets standards for each
  - However, providers are not reviewed against the framework nor do they publish their levels
- **Stroke services** are currently centralised in stroke units and will see **further centralisation**
  - Currently there are 3 certified stroke centres in the Eastern Metropolitan region, while 9 hospitals do no provide acute stroke care
  - Victoria is in the middle of implementing a regional strategy to create three distinct service tiers and coordinate care
- **A stroke telemedicine project is being piloted**
  - Real-time access to patient data and brain imaging facilitate remote consultations
- **Critical care** is provided in most hospitals, but there exists **statewide coordination**
  - In the Eastern Metropolitan region, all hospitals with more than 100 beds have or are planning critical care services in the form of ICUs
  - A central coordination centre ensures that critical care capacity is optimised across both public and private hospitals in the state
  - A statewide framework for planning and configuration has been recommended but not implemented yet
- Similar to the NHS, **almost all acute hospitals have an A&E but new models are being introduced** as a response to long waiting times
  - A&E care is provided by all acute hospitals 24/7
  - Private urgent care centres are starting offering an alternative to A&E where groups of doctors are seeing patients for non-life threatening emergency care
- While core **inpatient paediatric** care is provided in a number of acute hospitals, **community hospitals and primary care play an important role** as well
  - Paediatric services are provided across a range of facilities including specialist tertiary centres, secondary and community hospitals, and GPs
  - A short stay unit for paediatric patients, linked to the ED, has proved very successful in a community hospital in the Eastern Met region

Key players in the Victoria healthcare system

Payors

Public

- Australia's national public health insurance scheme, Medicare, provides universal health coverage
- Victoria, one of eight states, is the lead portfolio agency overseeing all health services, mental health, ageing and aged care, and preventative health, paid from a state budget
- Public hospitals are jointly funded by the Australian and state government

Private

- Private insurance is optional but encouraged with taxes and subsidies
- Private health insurance is community rated and provided by both for-profit and not-for-profit insurers

Providers

- Hospitals are a mix of public (run by state government) and private organisations
  - There were 762 public acute care hospitals and 552 private hospitals (including 272 day hospitals)
  - Beds in public hospitals account for 67% of total
- Primary care is provided by self-employed GPs
  - GPs play a gate keeping role as Medicare only reimburses specialists if the patient was GP referred
  - Practice nurses were employed in nearly 60% of practices in 2006
- Coordination of primary health and community care delivery is in the hands of Medicare Locals
  - Services include mental health services, after hours care and diabetes prevention

Regulators

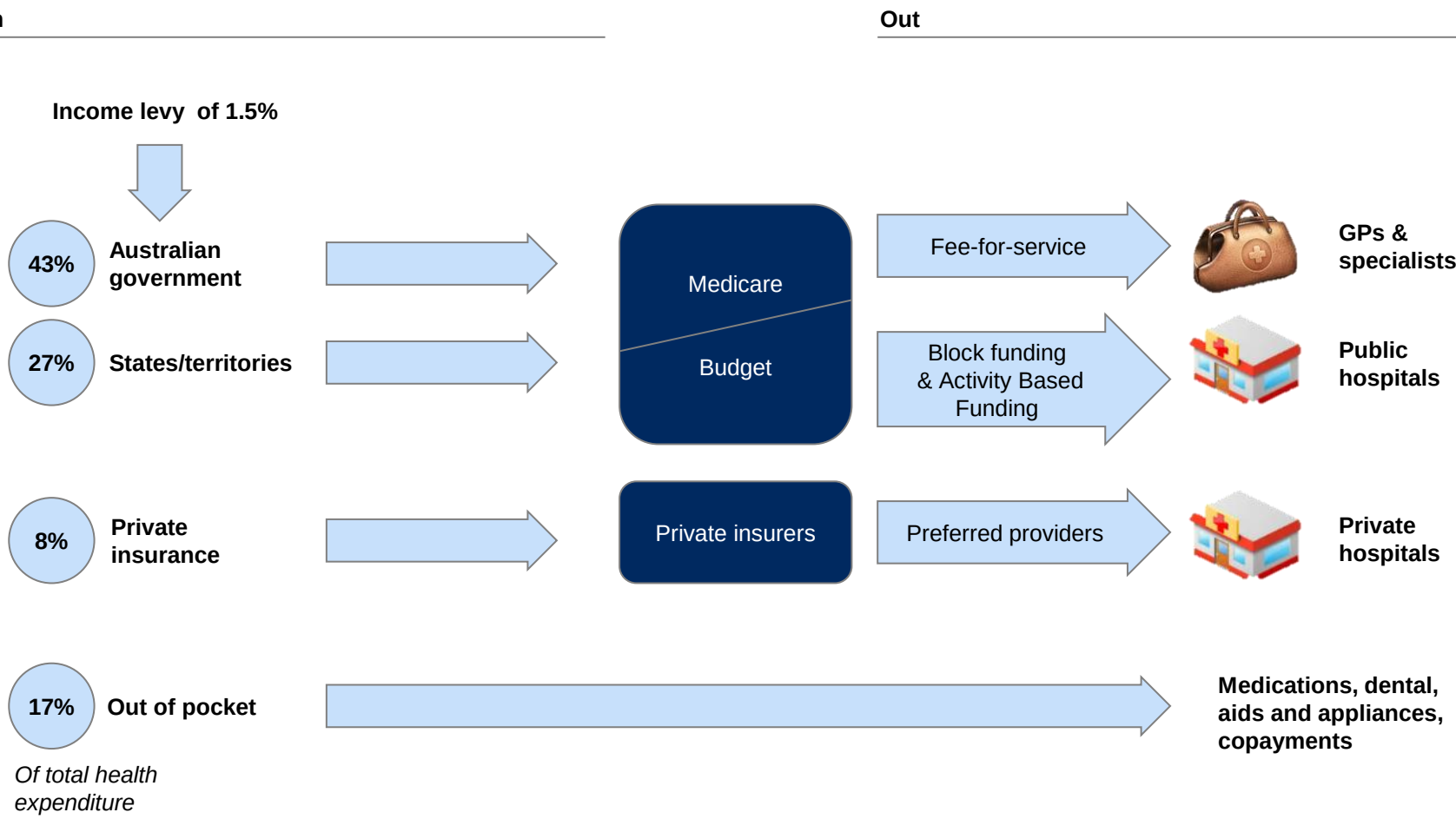
- The private health insurance industry is regulated by the Private Health Insurance Administration Council
- The states are charged with regulating all hospitals and community-based health services

Commissioners

- The eight states are autonomous in administering health services, such as the public hospitals, subject to intergovernmental and funding agreements

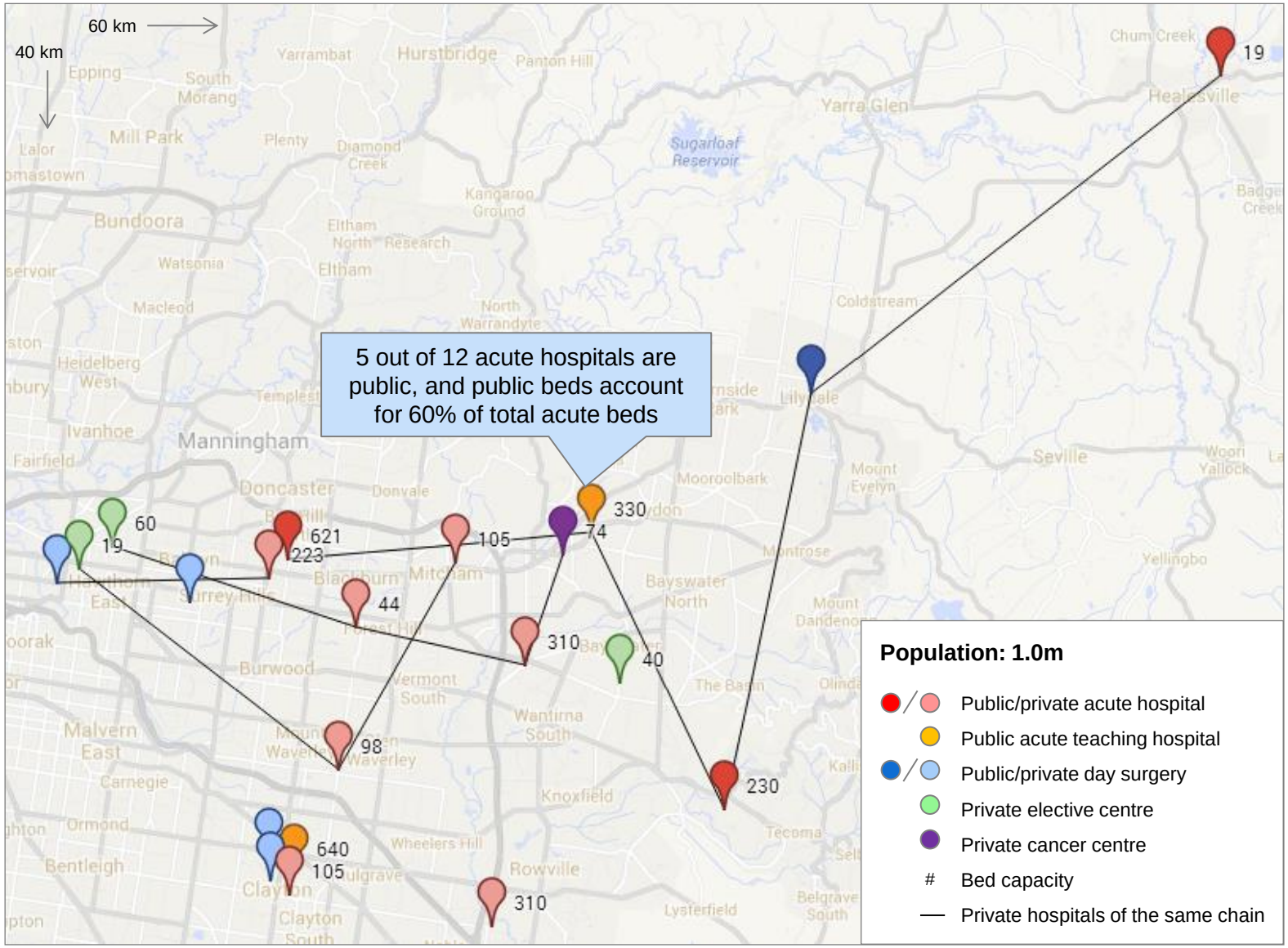
SOURCE: Victoria Department of Health, Commonwealth Fund: International profiles of health care systems, 2011

Financial model in Australia



SOURCE: Victoria Department of Health, Commonwealth Fund: International profiles of health care systems, 2011

The provider landscape in Eastern Metropolitan region



SOURCE: Victoria Department of Health; hospital websites