

A hand holding a pen is pointing at a list of numbers on a wall. The numbers are arranged in a grid-like pattern, with some numbers highlighted in blue and others in black. The numbers visible include 53, 56, 44, and 37. The background is a light blue wall with dark blue horizontal stripes.

**Penelitian Berkelanjutan di
Rumah Sakit sebagai Metode
Peningkatan Mutu dan
Keselamatan Pasien**

Trisasi Lestari - 2013

Quality is everyone business!





But, unless we **measure**, it's difficult to know exactly **what to improve** and whether we have in fact **achieved** improvement

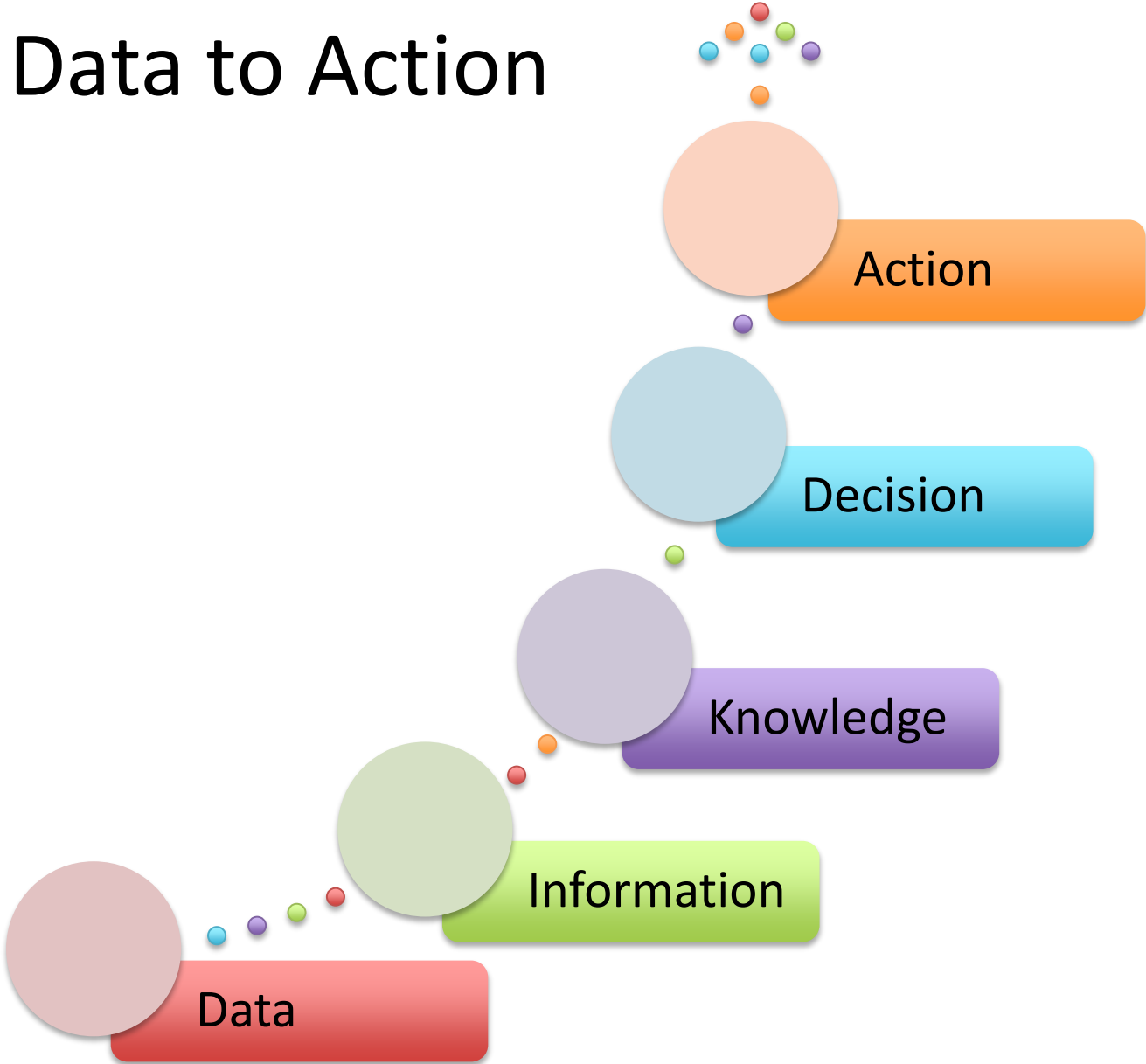
Role of Data

accurately identify
problems

assists to prioritize
quality
improvement
initiatives

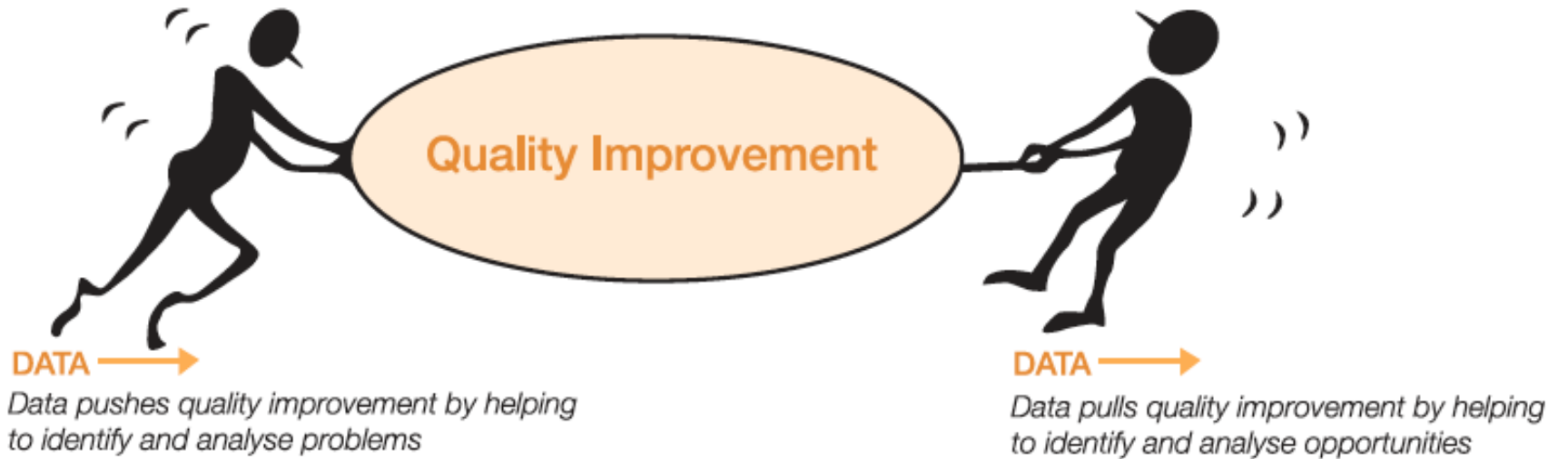
enables objective
assessment of whether
change and improvement
have indeed occurred.

From Data to Action



Role of data in QI

- Quality improvement can be both **reactive** and **proactive**.
 - Reactive to problem found in **routine** data
 - **proactively** look for **opportunities** for improvement.
- As a tool to **describe** what's going on, and
- To **compare** our performance, either against known standards or against previous performance.



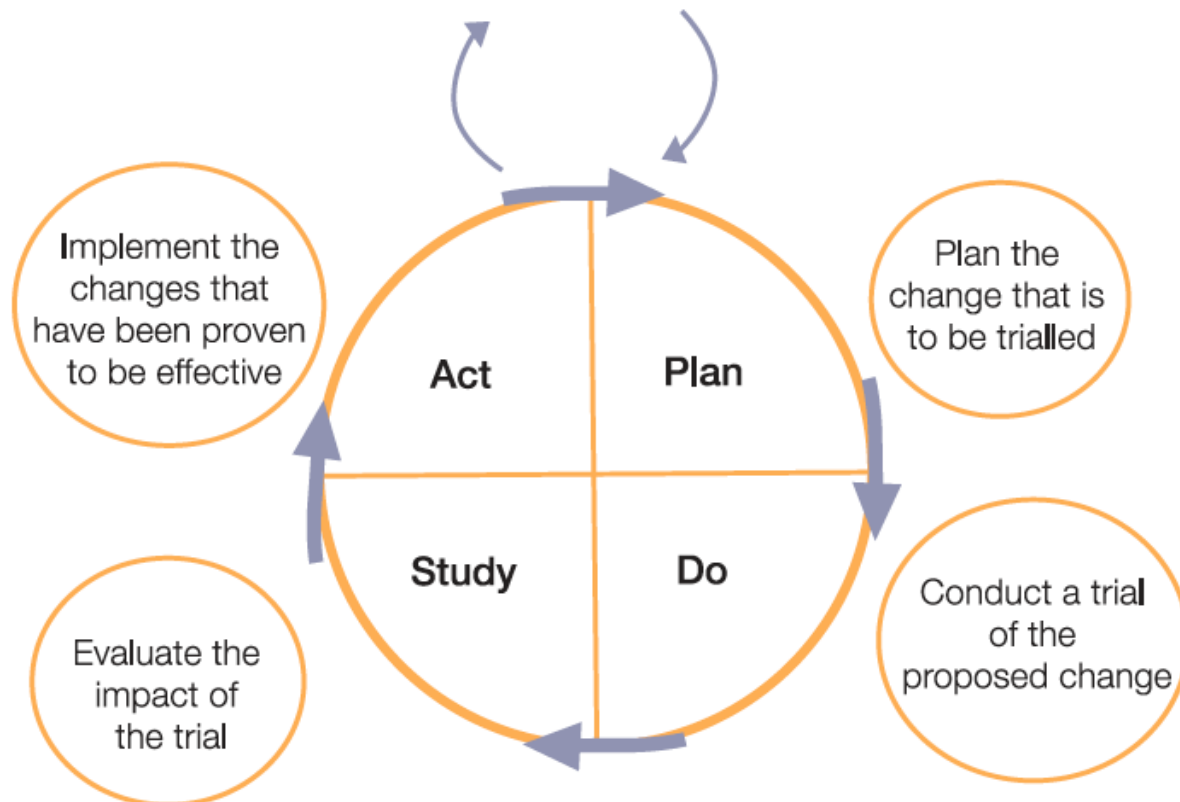
The more effort you put into understanding and utilizing data, the more you will be rewarded in terms of solving the right problem in the right way.

Model for Improvement

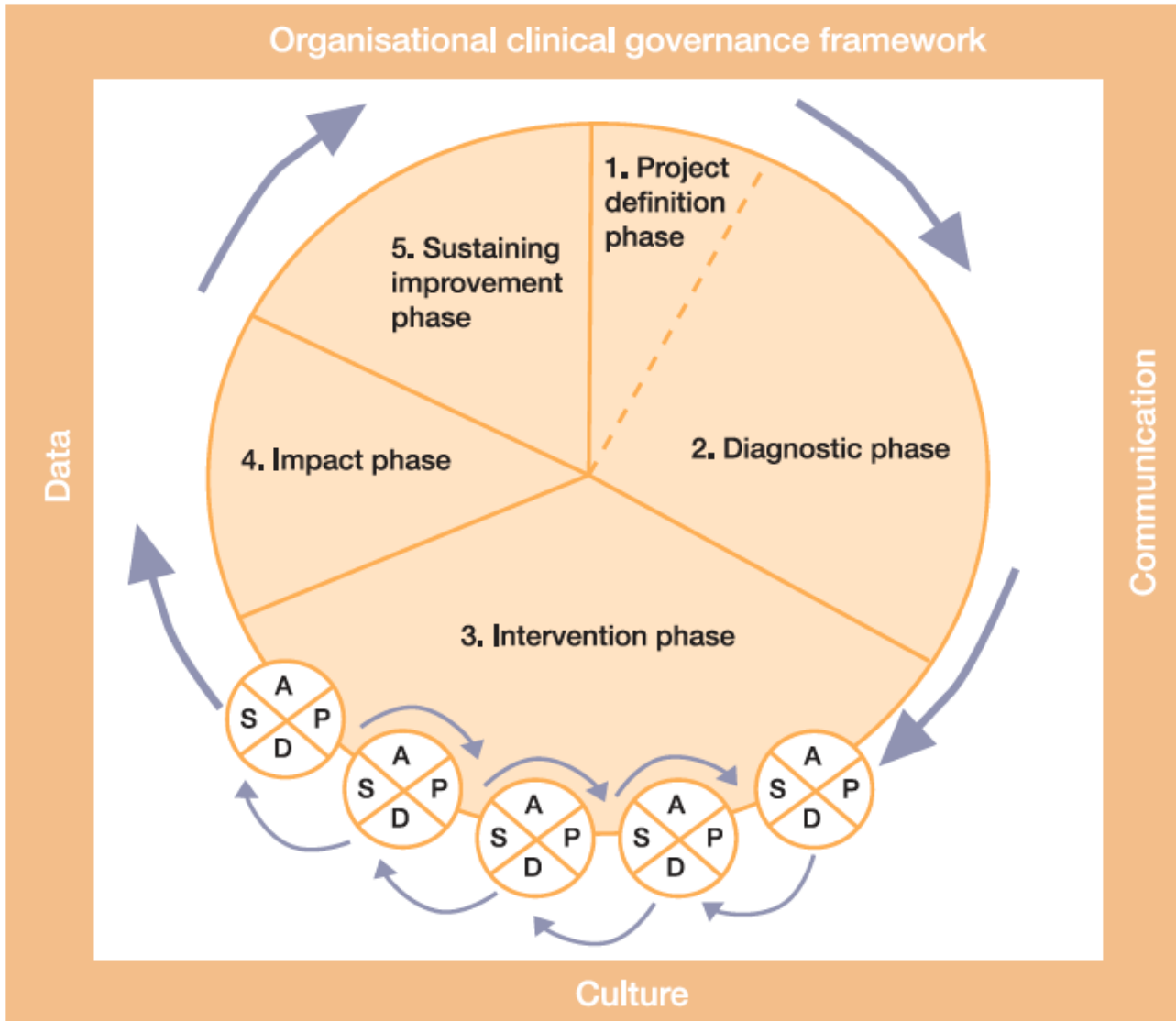
What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?



The Quality Improvement Phase



The Quality Improvement Phase



What is the Questions or Problems?

What is the problem or question?

With
(good)
data
you
can:

assess current performance and identify performance gaps

understand the needs and opinions of stakeholders

prioritise problems and improvement projects

establish overall aims and targets for improvement

establish a clear case for the need for improvement.

Nine dimensions of quality health care

Effective

Appropriate

Safe

Efficient

Responsive

Accessible

Continous

Capable

Sustainable

Identifying areas of concern for quality improvement

Quality domain/criteria	What data/types of measures might help you identify and prioritise quality improvement projects?
<p>Effective</p> <p>Care, intervention or action achieves desired outcome.</p>	<ul style="list-style-type: none"> ○ Clinical indicators ○ Benchmarking against other services/departments ○ Morbidity and mortality meetings/reports
<p>Appropriate</p> <p>Care/intervention/action provided is relevant to the client's needs and is based on established standards.</p>	<ul style="list-style-type: none"> ○ Clinical indicators ○ Audits against international standards/evidence-based guidelines ○ Benchmarking against other services/departments ○ Service utilisation data
<p>Safe</p> <p>The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care is delivered.</p>	<ul style="list-style-type: none"> ○ Adverse events and incidents ○ Sentinel events ○ Clinical indicators ○ Benchmarking against other services/departments ○ Morbidity and mortality meetings/reports ○ Accreditation reports

Identifying areas of concern for quality improvement

Efficient

Achieving desired results with the most cost-effective use of resources.

- Service utilisation data
- Expenditure data
- Audits of equipment/resource usage
- Customer complaints
- Waiting times
- Failure-to-attend rates

Responsive

Service provides respect for all and is client orientated. It includes respect for dignity, confidentiality, participation in choices, promptness, quality of amenities, access to social support networks and choice of provider.

- Service utilisation data
- Customer complaints
- Waiting times
- Failure-to-attend rates
- Accreditation reports

Accessible

Ability of people to obtain health care at the right place and right time irrespective of income, physical location and cultural background.

- Service utilisation
- Customer complaints
- Waiting times
- Failure-to-attend rates

Identifying areas of concern for quality improvement

Continuous

Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.

- Service mapping
- Clinician feedback
- Adverse events

Capable

An individual's or service's capacity to provide a health service based on skills and knowledge.

- Waiting times
- Adverse events
- Accreditation reports

Sustainable

System or organisation's capacity to provide infrastructure such as workforce, facilities and equipment, and be innovative and respond to emerging needs (research, monitoring).

- Accreditation reports
- Organisational score boards
- Integration with data systems
- Business plans/resource allocation

The Quality Improvement Phase



What can we improve?

What can we improve?

With (good) data you
can:

define the processes and people involved in the processes

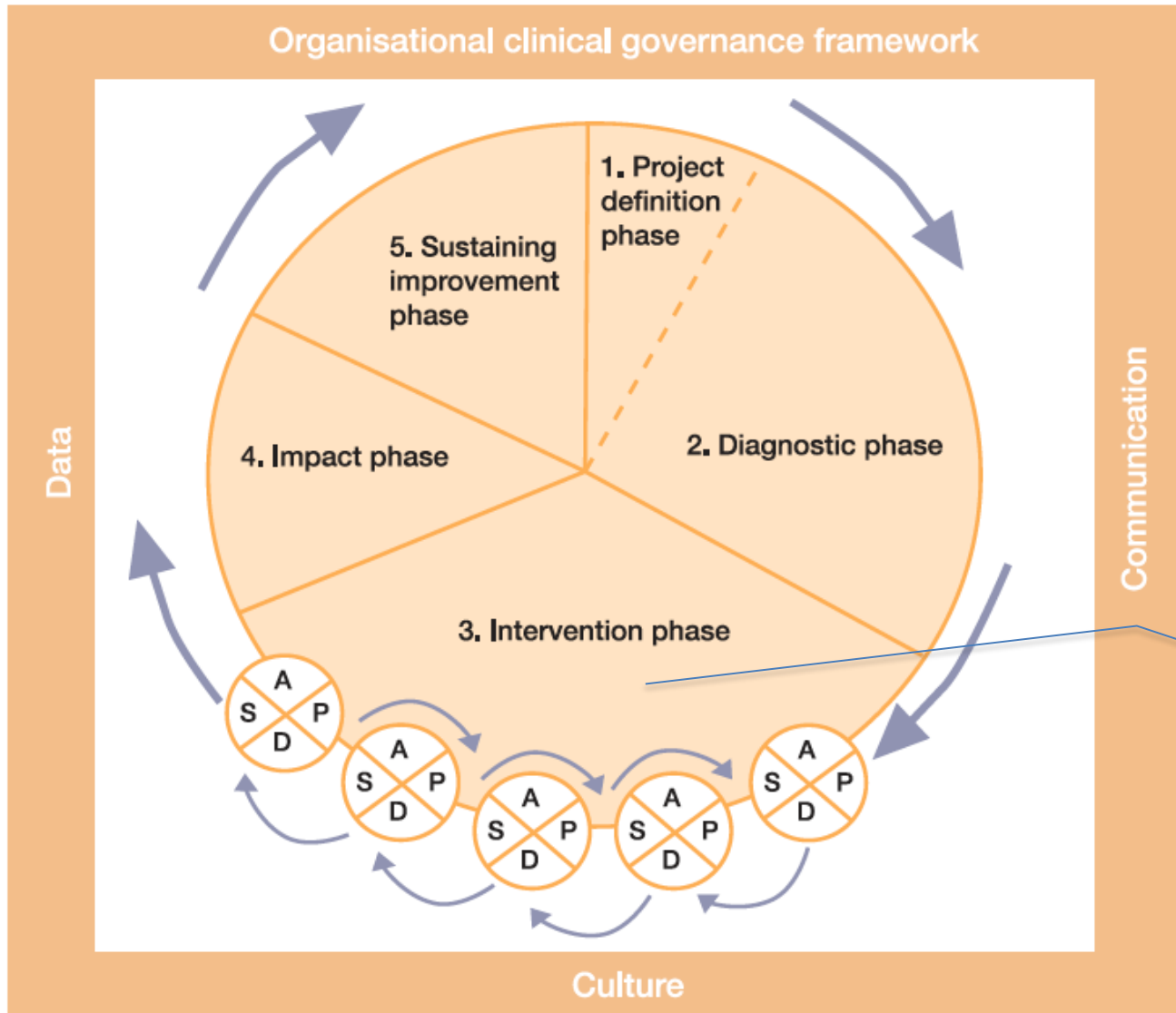
identify problem steps in the process

identify and prioritise opportunities for improvement

establish clear objectives for improvement of process steps

identify barriers and enablers to change.

The Quality Improvement Phase



How can we achieve improvement?

How can we improve?

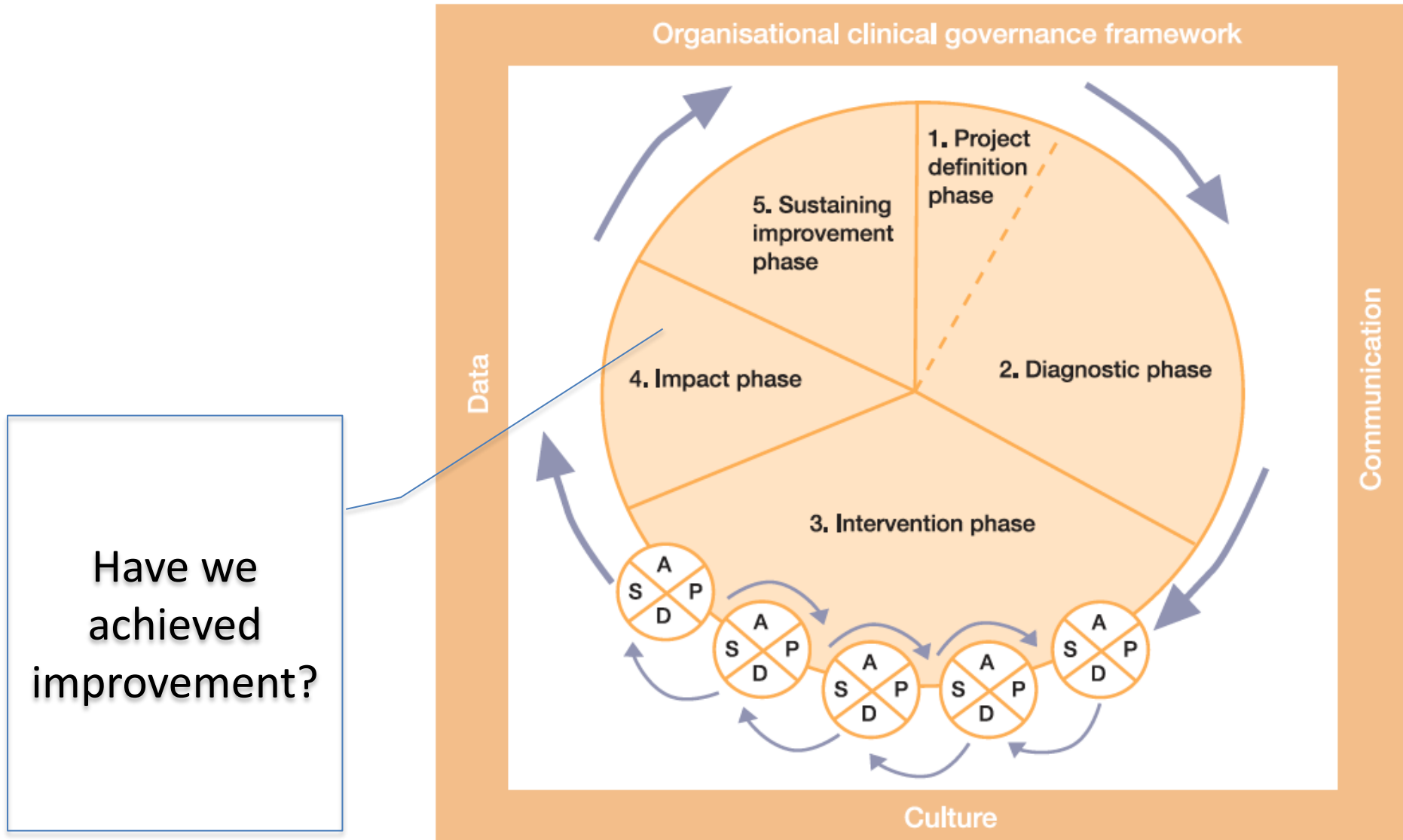
With (good) data
you can:

determine the most appropriate interventions to address your particular problem and to suit your situation

prioritise interventions and implementation strategies

compare the benefits of alternative interventions and implementation strategies.

The Quality Improvement Phase



Have we achieved improvement?

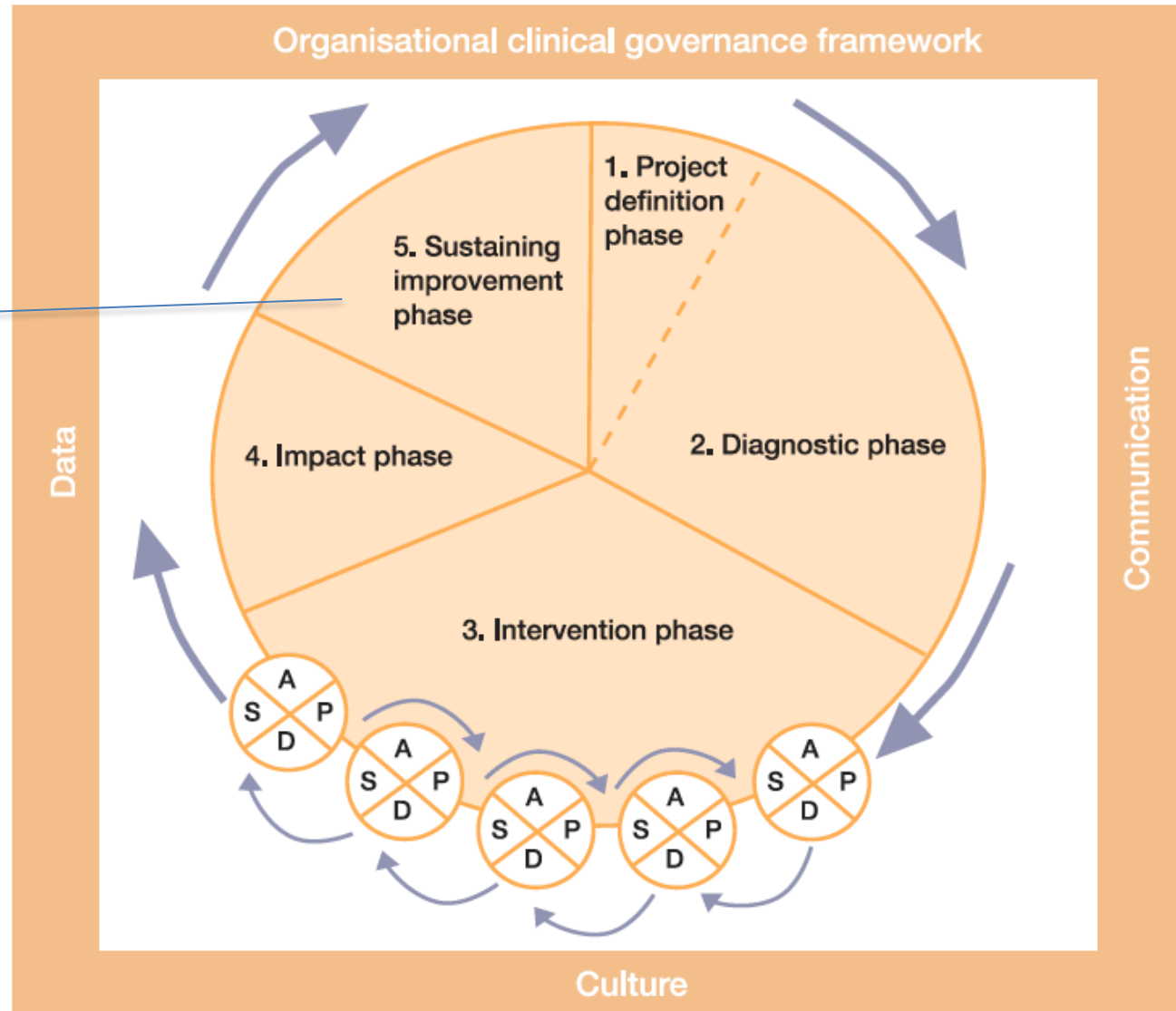
With (good) data
you can:

assess the impacts of
interventions and
implementation strategies

demonstrate the success of
the improvement project to
stakeholders.

The Quality Improvement Phase

Have we sustained improvement?



Have we sustained improvement?

With (good) data
you can:

provide feedback to reinforce change and demonstrate benefits for clinicians and clients/patients

identify slippage in practice and the need for repeated intervention or change of intervention approach.

To understand processes and improvement opportunities

Brainstorming

Process mapping

Surveys, key informant interviews and focus groups

Audits

Control charts

Benchmarking

Sumber data?



Internal
data

External
data

Internal Data

- adverse events, incident reports and
- sentinel events
- infection rates, isolates
- length of patient stay
- a range of clinical indicators
- service utilisation data including diagnostics,
- pharmacy, specific procedures
- clinical outcomes from clinical registries
- waiting times for surgery
- waiting times for the emergency department
- customer complaints
- expenditure reports
- use of high-cost medication items.

Eksternal Data

- Laporan nasional
- Laporan surveillance
- Publikasi ilmiah
- Performance RS lain

Jenis data

Administrative

- Demografi
- Service delivery
- Data finansial
- Readmission
- Length of stay

Clinical

- Adverse event
- Risk factor
- Mortalitas
- Morbiditas
- Infection rates

Good Data

Reliable

Valid

Unbiased

Pengumpulan Data

Sampling

- Populasi
- Sample size
- Sampling teknik
- Bias

Data entry

- checking
- Cleaning

Storing and managing

- Spreadsheet
- Database program
- Statistical program

you don't have to be a
statistician to be successful in
quality improvement.

Data Presentation & Statistics

1. Deskriptif Statistik

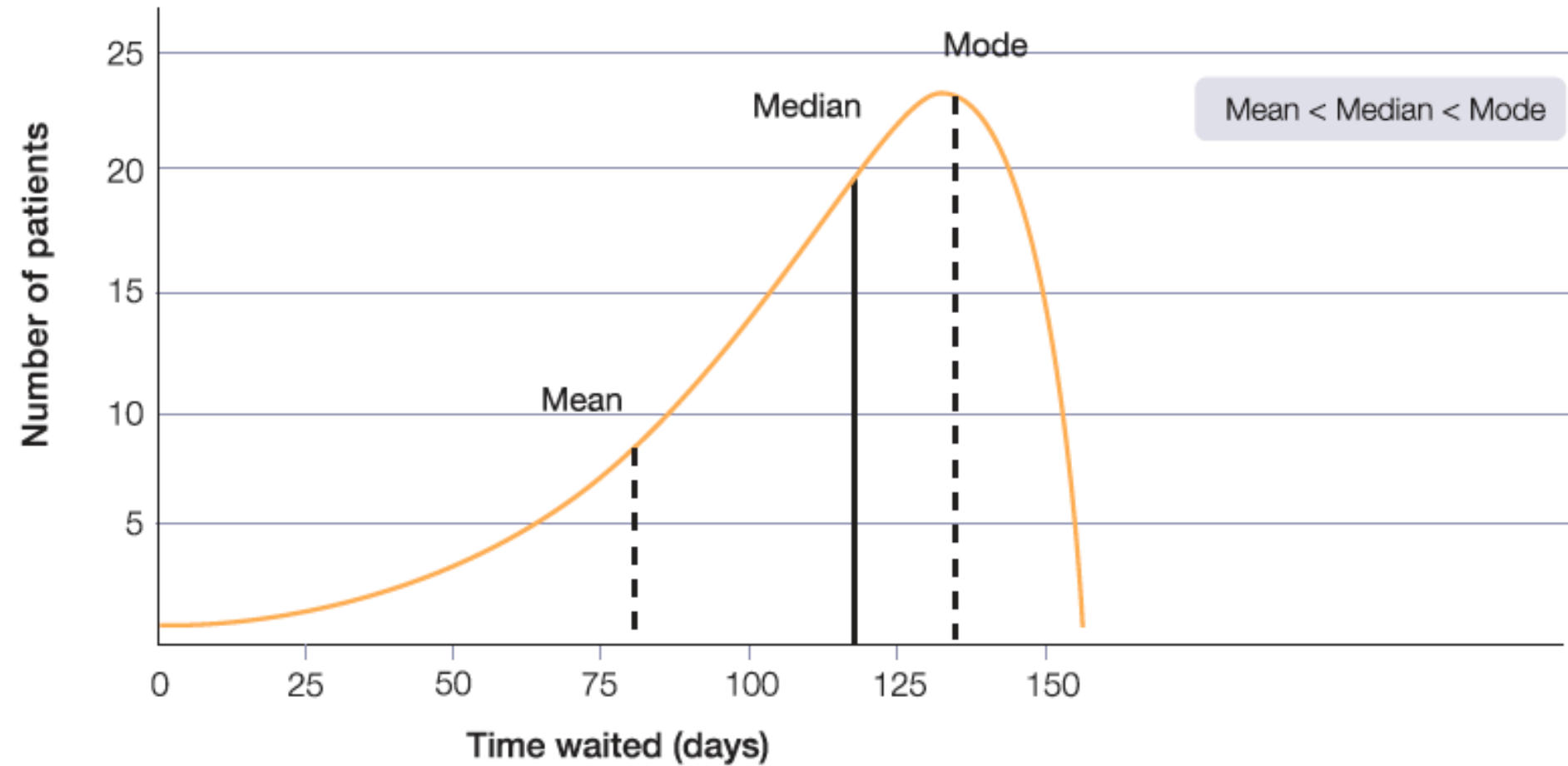
	Females versus males
Counts	228 females, 152 males
Ratio	3 to 2
Rate	60 females per 100 population
Percentage	60% females

Percentage change

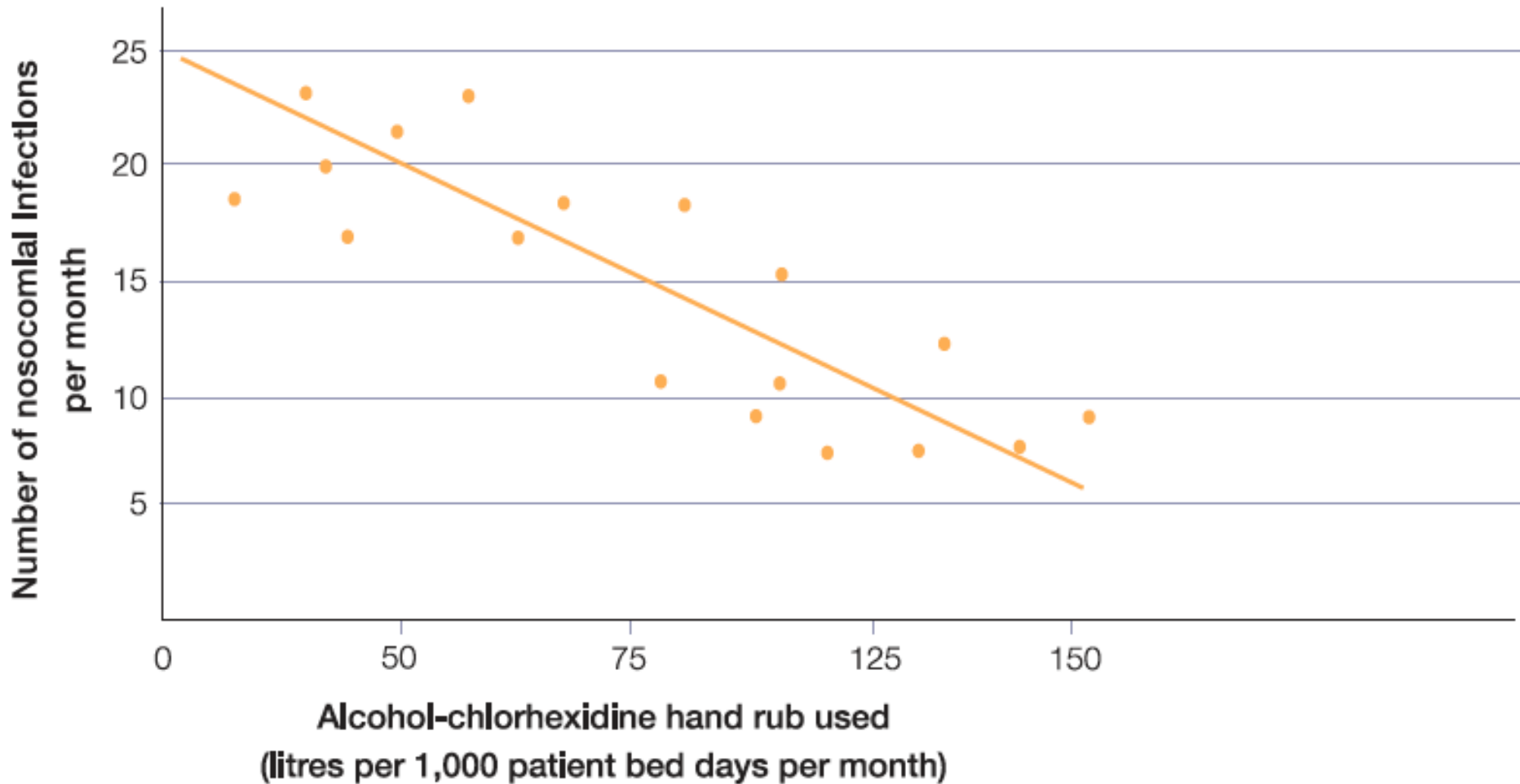
Prevalence of pressure ulcers before and after intervention

Specialty area	% prevalence before intervention	% prevalence after intervention	Percentage change
Spinal	41.4 (n=35)	60.9 (n=23)	19.5
Medical	27.8 (n=1,460)	18.6 (n=1,645)	-9.2
Rehabilitation	29.9 (n=946)	24.0 (n=1,101)	-4.7
Surgical	22.4 (n=1,317)	14.1 (n=1,645)	-8.3

Measures of centre



Korelasi



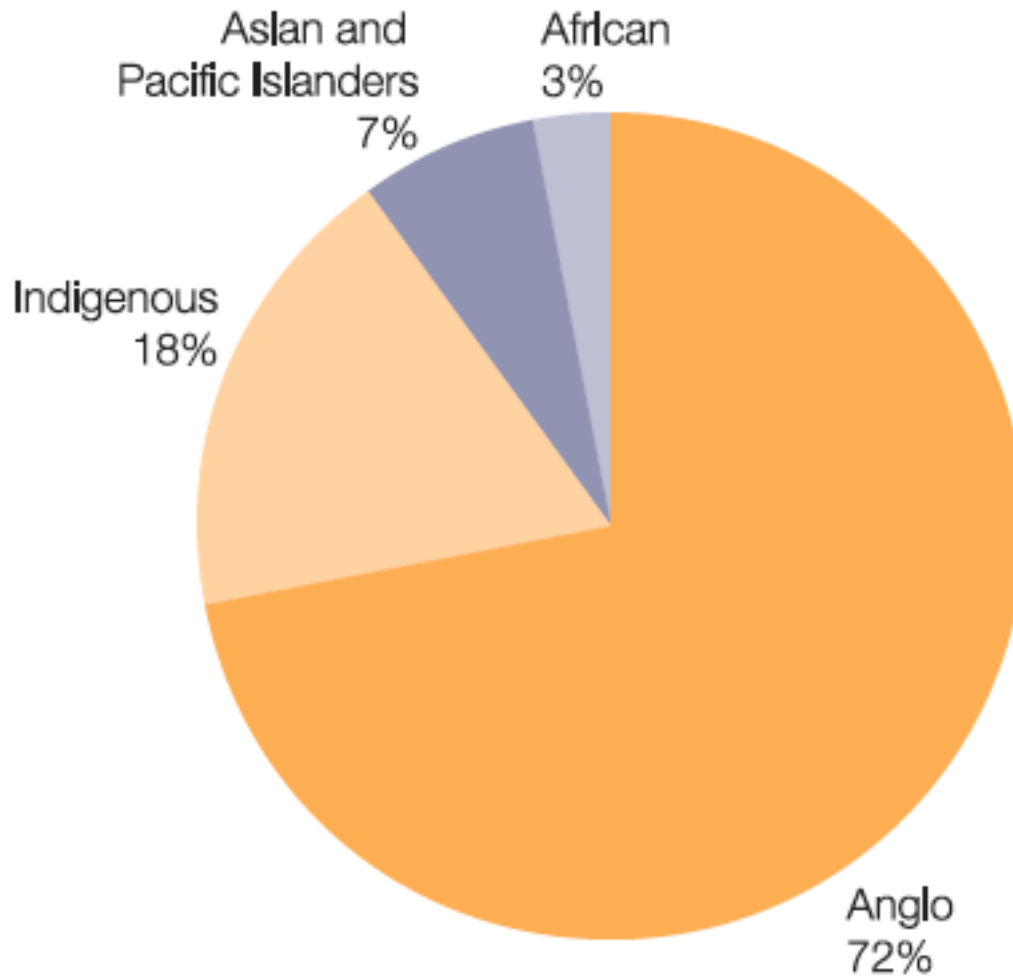
Satisfaction survey response rate)

Sites	Site 1			Site 2				Total
Services	Service 1 Ortho	Service 2 Maternity	Total	Service 3 Ortho	Service 4 Diabetes	Service 5 Oncology	Total	
No. of surveys sent	140	76	216	47	50	36	133	349
Number of responses by service (%)	75 (54)	50 (41)	125 (58)	35 (74)	32 (64)	31 (86)	98 (74)	223 (64)

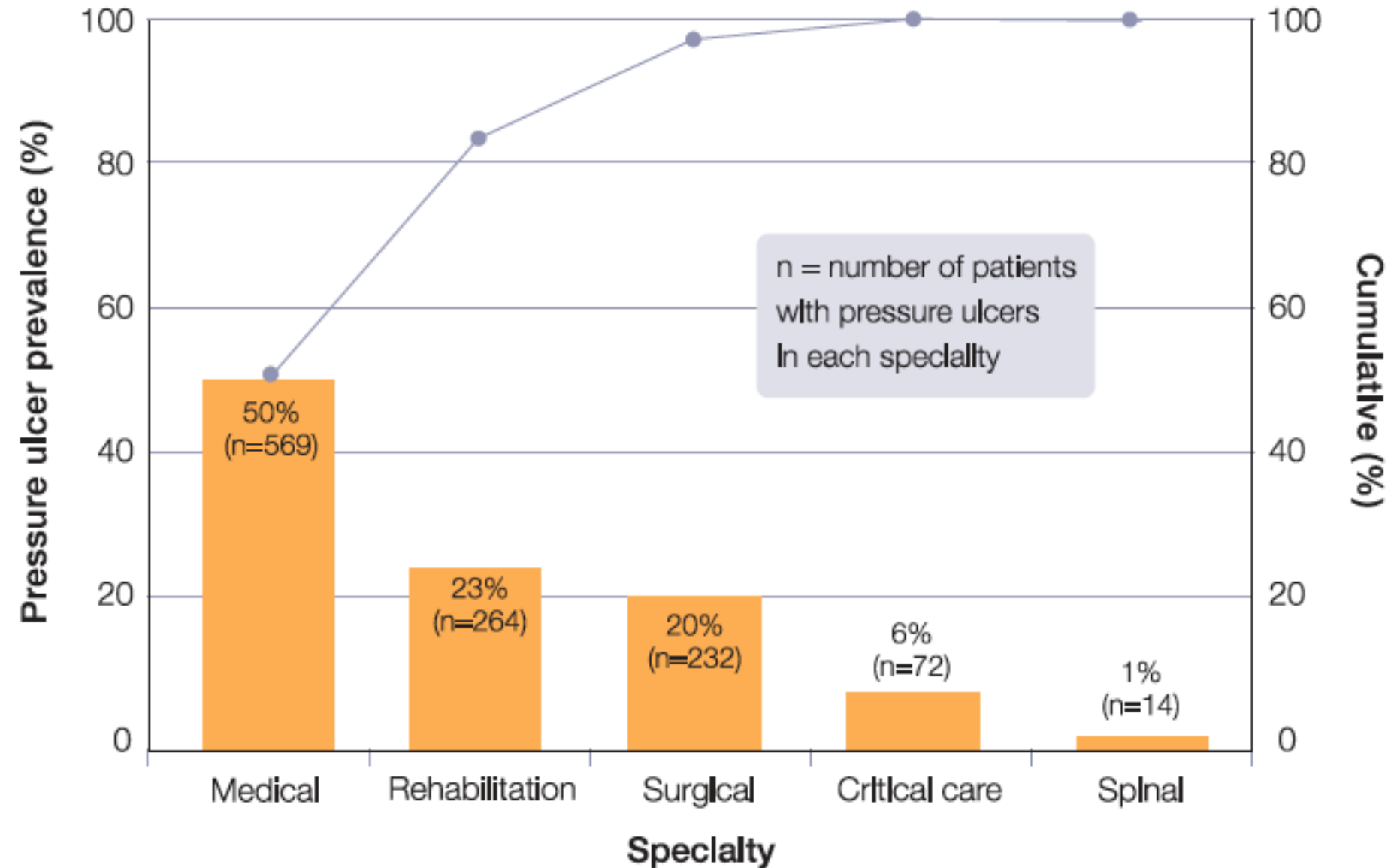
Satisfaction Survey Results

Elements of service	Dissatisfied or very dissatisfied (combined responses 1 and 2 from 5 point scale) *, n (%)		
	Service 1 (n=75) Orthopaedics	Service 2 (n=50) Maternity	Total (n=125)
Availability of suitable appointment time	15 (20)	10 (20)	25 (20)
Waiting time to be seen	17 (23)	5 (10)	23 (18)
Courtesy of staff	4 (3)	0 (0)	4 (3)
Information provided	4 (3)	8 (16)	12 (10)
Opportunity to contribute own thoughts and opinions during consultation	8 (11)	4 (8)	12 (10)
Overall satisfaction with service	10 (13)	7 (14)	17 (14)

Pie Chart

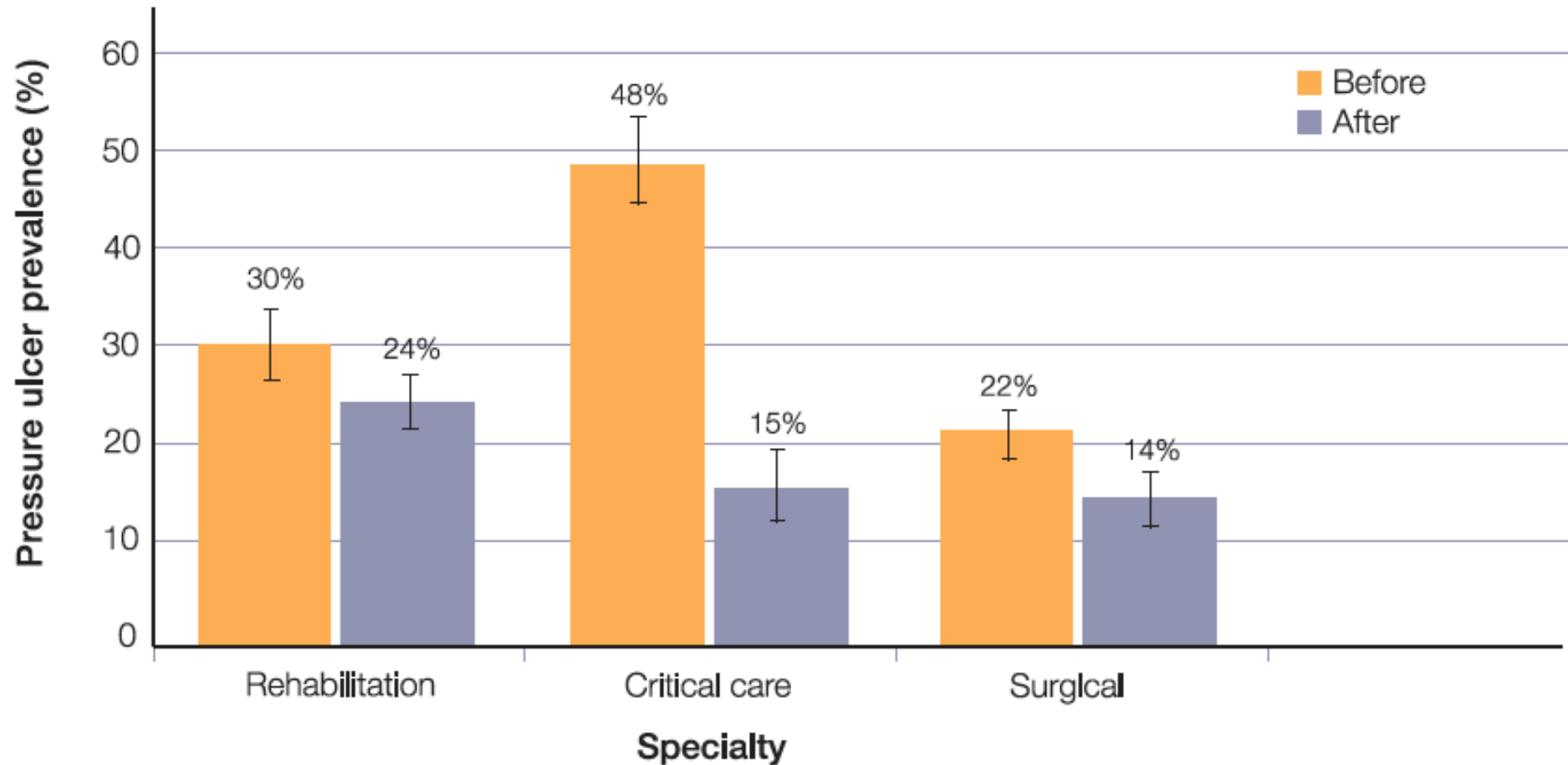


Pareto Chart



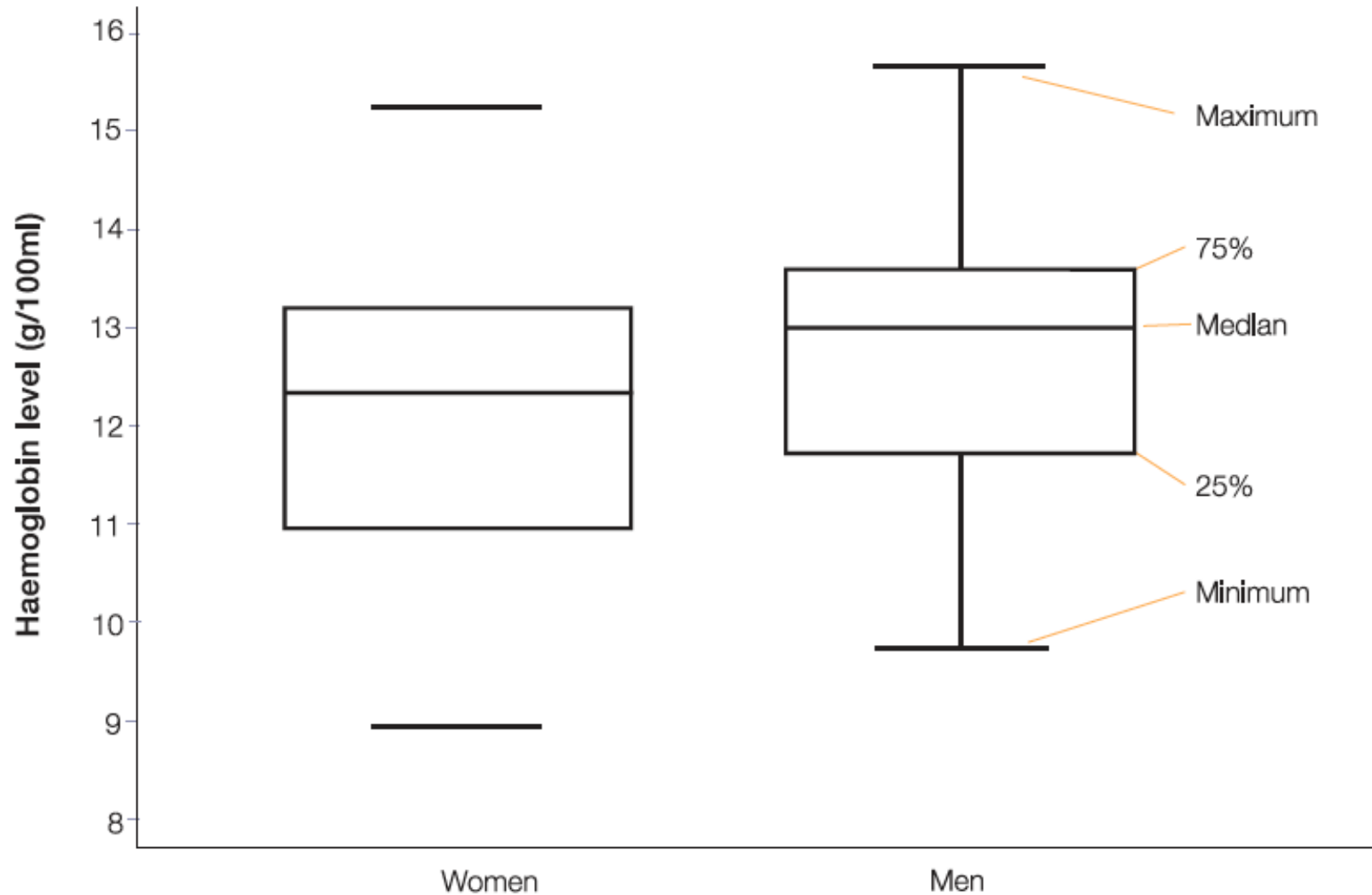
Using bar for comparison

Impact of a pressure ulcer prevention intervention



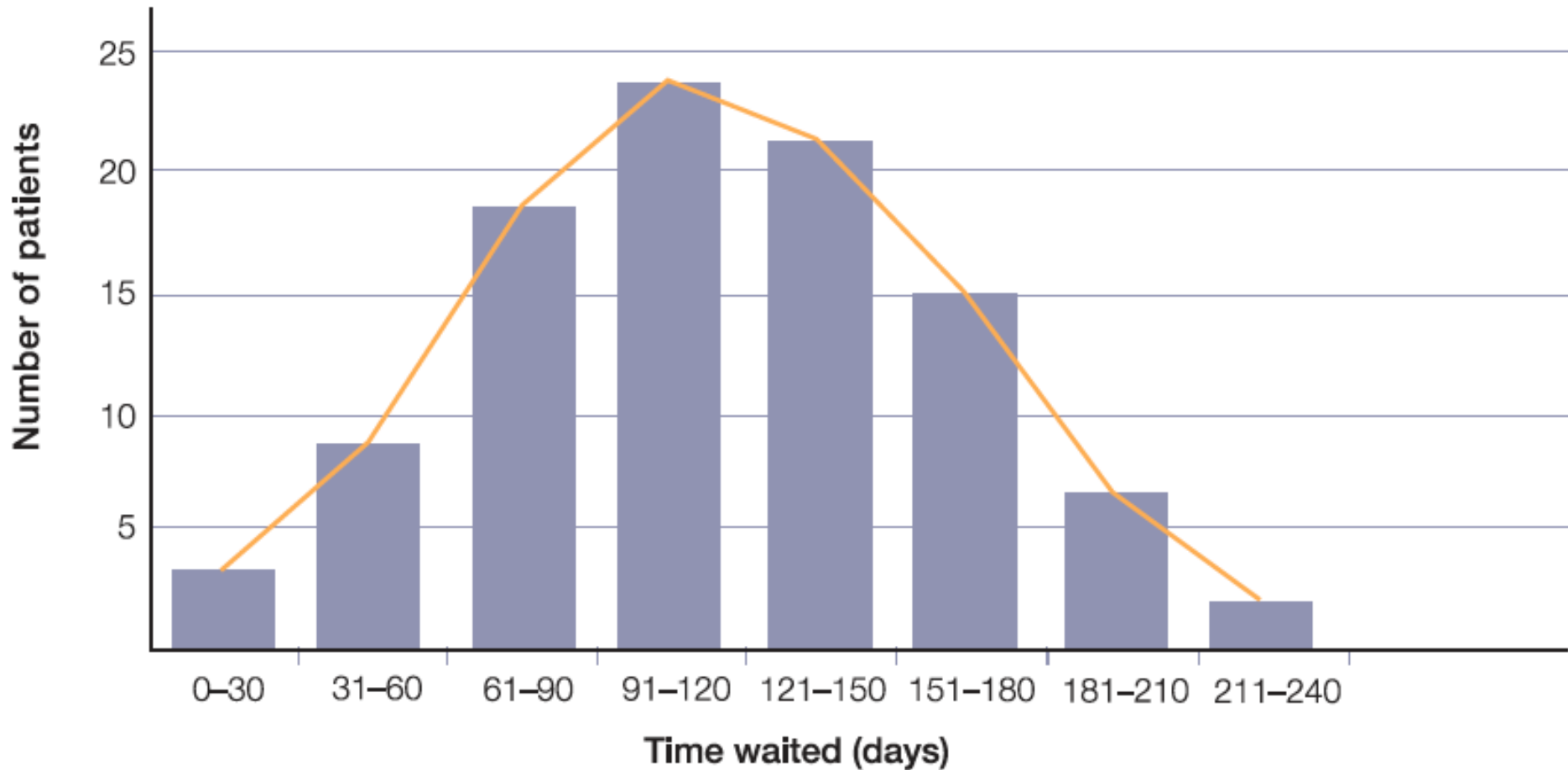
Box Plots

Haemoglobin levels of women and men

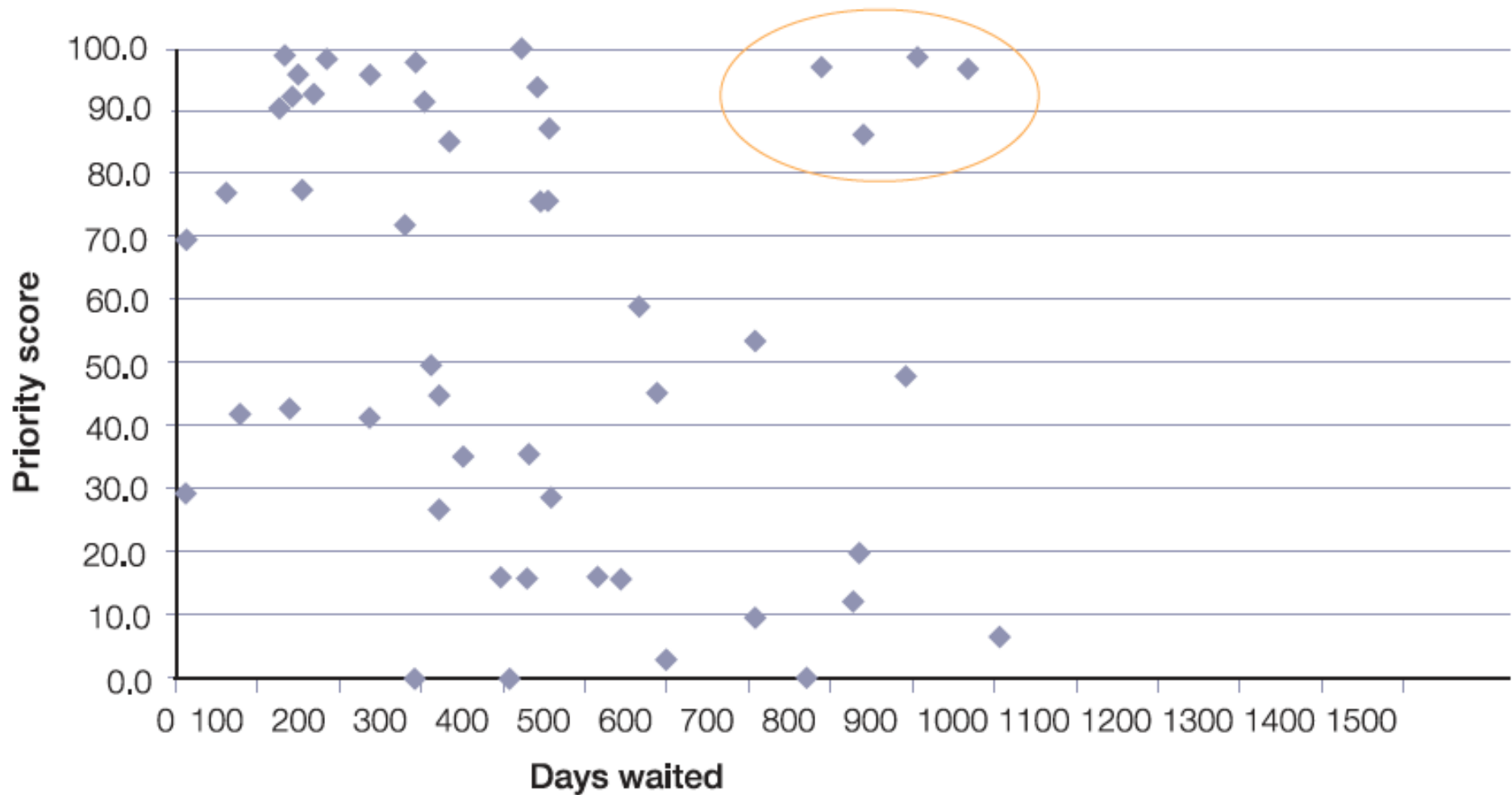


Histogram

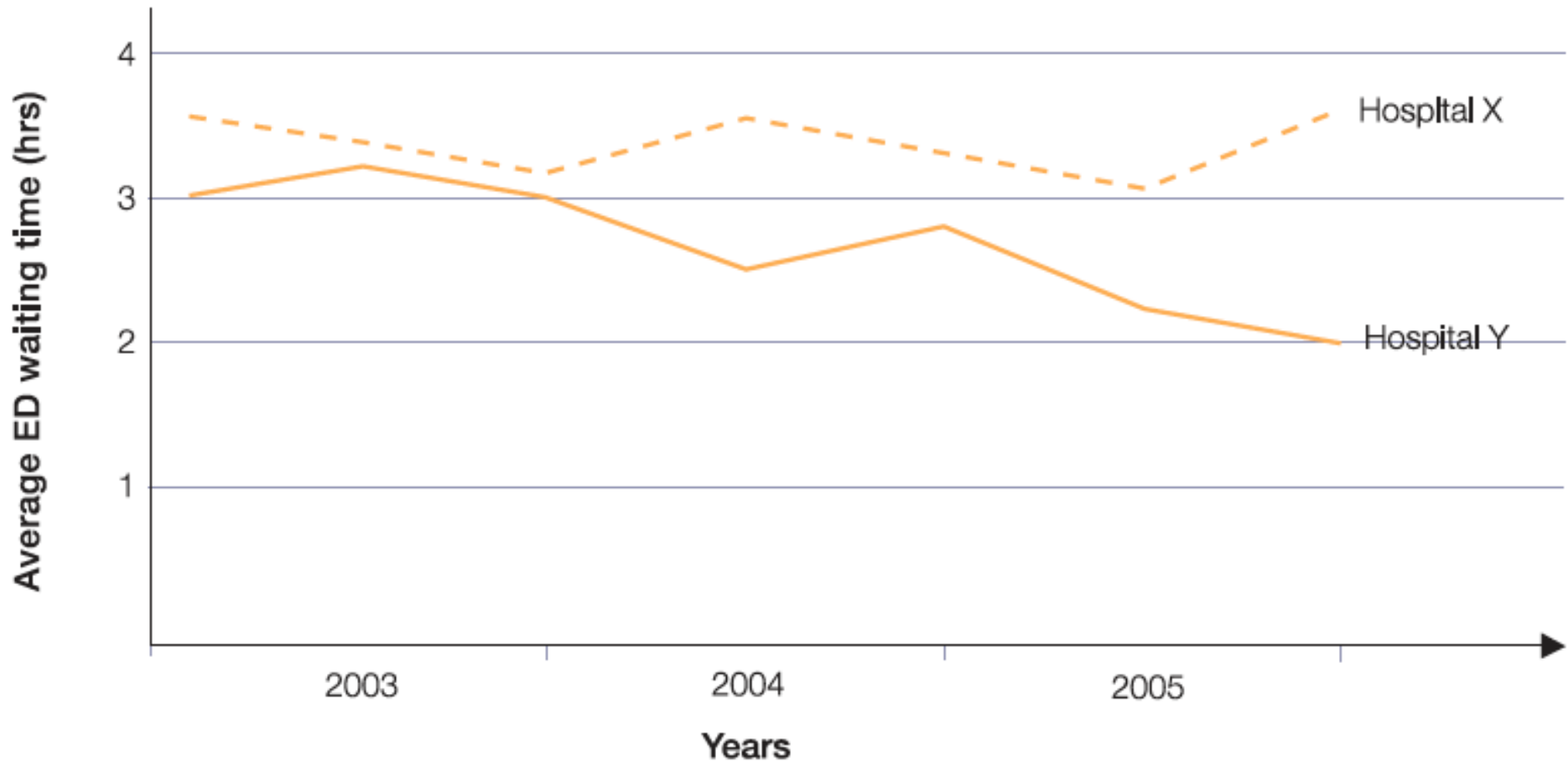
Histogram and histogram – Waiting time for elective surgery (n= 96)



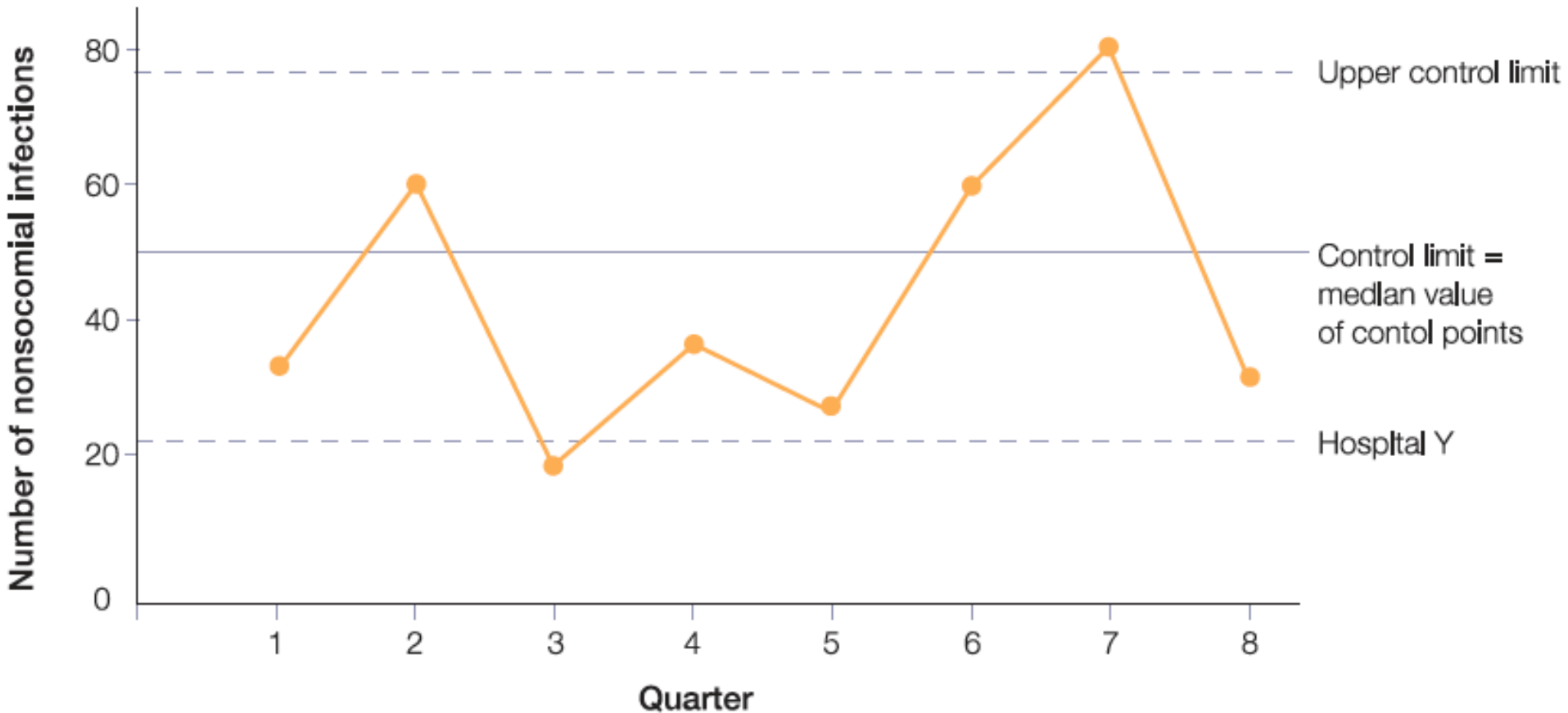
Scatter plot of patient priority score vs time waited for surgery (n=50)



Line graph representing waiting times in the emergency department of two hospitals



Control chart representing nosocomial infections in the emergency department



Terima Kasih