SCOTLAND’S JOURNEY FROM WAITING TIMES TO QUALITY OF CARE

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HOW IT WORKS IN SCOTLAND

POLITICAL DIRECTION
EXECUTIVE LEADERSHIP

PATIENT FOCUS
EVIDENCE BASE

ACTIVELY
PLAN & MANAGE
WAITING TIMES

DEFINED TARGETS
DELIVERED
THEN BECOME: ‘BUSINESS AS USUAL

ACTIVELY IMPROVE
SERVICES
ACTIVELY IMPROVE
QUALITY
“Merely enforcing a time constraint does not necessarily confer the capacity to meet such process goals” (Litvak)
“… effective services must be designed with and for people and communities – not delivered ‘top down’ for administrative convenience” (The Christie Commission Report)

1. Introduction
2. Quality
3. Service improvement and transformation
4. Targets, performance management, accountability
5. Planning & managing waiting times: queue; pathway; flow
6. Appropriateness of care
7. Conclusion
Are We Doomed?

A comedy character, Private Frazer, displaying the famous Scottish optimism. In Scotland it felt like we might be doomed back in the 1990s. Waiting Times for referral to treatment were regularly significantly over a year, with the time from assessment to treatment alone often being more than one year. However, following ten years intensive activity the situation has transformed.
Waiting time standards are part of an overarching Scottish NHS strategy for quality. Waiting Times are managed as one of the six dimensions of quality:

Shorter waiting times should be an outcome of a high quality clinically effective, resource efficient service.
QUALITY
Scotland’s 2020 Vision

By 2020 everyone should be able to live longer healthier lives at home, or in a homely setting and we will have a health care system where:

• There is integrated health and social care
• There is a focus on prevention, anticipating and supported self-management
• Day case treatment will be the norm
• Whatever the setting, care will be provided to the highest standards of quality and safety, with the person at the centre of all decisions
• There will be a focus on ensuring that people get back into their home or community environment as soon as appropriate, with minimal risk of readmission

[To be delivered within the context of an ageing population and reducing public expenditure in real terms – by 2033 the number of people over 76 is likely to have increased by 60%; there will be growing numbers of people with multiple conditions and complex needs; the number of people with dementia is set to rise from 71,000 to 127,000 within the next 20 years]
QUALITY
Scotland’s 2020 Vision

Scotland’s 2020 vision builds on a record of success to date:

- **Massively reducing waiting times** and delayed discharge from hospital
- Significantly reducing premature mortality from cancer, heart disease and stroke through a number of initiatives including the ‘detect cancer early’ programme
- Delivering enhanced patient safety with major reductions in levels of Healthcare Associated Infections

But much work remains to be done, particularly in relation to:
- Scotland’s public health record
- The level of inequalities
- Increasing expectations
- The specific impact of inflation on healthcare
QUALITY
Scotland’s 2020 Vision

“We have achieved these successes through working in partnership across the Scottish Government, the wider public sector and with staff. Looking ahead, our model remains one of integration, collaboration, outcomes, focus, values, trust and innovation.”

“Our recognition of the importance of local ownership of decision making and service delivery complements our unified system for governance and accountability in NHSScotland.”
QUALITY
Scotland’s 2020 Vision – The Route Map

Three Domains – ‘Triple Aim’:

1. Quality of Care
2. Health of the Population
3. Value and Financial Sustainability

Supported by:

– Twelve Priority areas for Action
– Twenty-five key deliverables for 2013/14
QUALITY
Scotland’s 2020 Vision – The Route Map

Twelve Priority Areas for Action:

1. Person Centred Care – people powered health care services
2. Safe – accelerating the programme to improve safety
3. Primary Care – increasing the role of primary care
4. Unscheduled & Emergency Care – improving the way we deliver services
5. Integration – integrating health and social care
6. Care for multiple & chronic illness – improving our approach to treatment
7. Early Years – drive forward the early years collaborative
8. Health Inequalities – reducing health inequalities
9. Prevention – alcohol, tobacco, physical activity, early detection of cancer
10. Workforce – establishing a vision, a clear plan to have immediate effect
11. Innovation – increase investment in new innovations
12. Efficiency & Productivity – more effective use of unified approaches
QUALITY
The Patient Rights Act

The ‘Patient Rights Act’ legislates that it is the right of every patient to receive care that is patient focussed, takes account of the patients needs, provides optimum benefit, keeps the patient informed, encourages the patient to participate as fully as possible, treats the patient with dignity and respect, with privacy and confidentiality, is caring and compassionate, is based on recognised clinical guidance and causes no avoidable harm or injury.

It is in pursuance of these rights that all reasonably practicable steps must be taken to ensure compliance with the legal Treatment Time Guarantee (and all other waiting time targets and standards), taking account of the patient’s clinical needs and the clinical needs of other patients.
The Scottish Intercollegiate Guidelines Network (SIGN) – Clinical guidelines are systematically developed to assist practitioner and patient decisions about appropriate health care, providing recommendations for effective practice where variations in practice are known to occur and where effective care many not be delivered uniformly.

Scottish Patient Safety Programme - The fundamental aim of the programme is to reduce avoidable harm to patients by improving the safety of patient care at all points of care delivery, progress is based on measurable outcomes for mortality, infection rates, adverse events.

Scottish Health Technologies Group – provides advice on the evidence about cost effectiveness of existing and new technologies (excluding medicines) likely to have significant implications for patient care.

Scottish Medicines Consortium – accepts for use those newly licensed drugs that clearly represent good benefit and value for money.

The Scottish Health Council – promotes patient focus and public involvement by ensuring patient and public views are taken account of and the National Health Service works in partnership with patients, carers and public.
Effective clinical engagement is fundamental to delivering Scottish waiting time standards. For example: the delivery of the referral to treatment target for cardiac services was led by a clinical group; the delivery of 18 weeks referral to treatment standard has been supported by a number of clinically led ‘task and finish’ groups; there have been clinical champions for service improvement in each NHS Board; a clinically led musculoskeletal and orthopaedic quality drive is in place.
SERVICE IMPROVEMENT & TRANSFORMATION
Central to the Improvement of Waiting Times

- Service improvement and transformation of services have been central to Scotland’s drive to improve waiting times.

- Improvement programmes have utilised recognised change and improvement methodologies, e.g. the improvement model (process mapping, PDSA cycles) statistical process control, queuing theory, LEAN, Demand/Capacity/Activity/Queue, flow analysis and management.

- Efficiency, productivity and value for money improvements
Improvement and Transformation Programmes

There have been a series of improvement and transformation programmes in place over a period of twelve years, centrally funded but integrated with provider organisations, for example:

- The outpatient programme
- The planned care programme
- The 18 weeks referral to treatment time service redesign and transformation programme
- The acute flow and capacity planning programme
- The whole system patient flow improvement programme
The models reviewed were:
1. Total quality management / continuous quality improvement
2. Business process re-engineering
3. IHI’s rapid cycle change
4. Lean thinking
5. Six sigma

Conclusions:
1. “There are broad set of necessary but not sufficient conditions that need to be in place for successful implementation.”
2. “The different models have considerable similarities in implementation. Importantly, there is no one right method or approach that emerges above the others as the most effective.”
3. “The success or otherwise of implementation depends crucially on the interaction between the local context and the approach as it is applied.”
Necessary but not sufficient conditions include:

- Provision of the practical and human resources required
- Active engagement of health professionals, especially doctors
- Sustained managerial focus and attention
- The use of multi-faceted interventions
- Co-ordinated action at all levels of the healthcare system
- Substantial investment in training and development
- Availability of robust and timely data
- Alignment of quality improvement activities with strategic goals
- Embedding quality improvement as an integral part of everyday work of all staff (rather than the responsibility of a separate team)
TARGETS, PERFORMANCE, ACCOUNTABILITY
Accountability – The Scottish Structure

• There are 14 regional NHS Boards responsible for the protection and the improvement of their population’s health and for the delivery of frontline healthcare services.

• Seven special NHS Boards and one public health body support the regional NHS Boards by providing a range of important specialist and national services, for example: NHS Health Scotland; NHS Healthcare Improvement Scotland; NHS National Waiting Times Centre.

• Each NHS Board has a chair and non-executive directors and a Chief Executive and executive directors, including a medical director and nurse director; public board meetings are supported by other public meetings and consultation.

• The Chief Executives are accountable to the Board and to the Chief Executive of the NHS in Scotland (who is also head of the civil service health department), there are monthly management meetings involving all chief executives and other senior staff.

• The chairs of Health Boards are appointed by the Cabinet Secretary (the politician responsible for health and wellbeing) and there are monthly meetings of the chairs with the Cabinet Secretary.
TARGETS, PERFORMANCE, ACCOUNTABILITY

Accountability – Local Delivery Plans

• The Local Delivery Plan (LDP) is the delivery contract between the Scottish Government and NHS Boards. It provides assurance and underpins NHS Board annual reviews.

• LDPs have supported Boards to transform waiting times for patients.

• LDPs are evolving documents, as services improve LDPs are refocused to address the most significant remaining challenges.

Local Delivery Plans Incorporate:

• Improvement and Co-production plans – expected to include actions to improve whole system unscheduled care flow, personalised & anticipatory care planning, support for self-management and access to integrated services.

• Community Planning Partnerships – focus on economic recovery and growth, employment, early years, early intervention, safer & stronger communities, reducing offending, health inequalities, physical activity, older people.

• HEAT Plans & delivery trajectories – commitment to improvement against each target.

• Financial Plans – Boards to demonstrate plans to remain within budget.

• Workforce Plans – ensure right people in the right numbers in the right place.
HEAT Targets

**Health improvement; Efficiency and governance; Access to services; Treatment appropriate to the individual**

A target is in place until delivered, then it becomes a standard, examples are:

- The range of waiting time targets and standards
- Suicide reduction
- Smoking cessation
- Reduction in infection rates
- Reduction in sickness and absence among staff
- Reduce health inequalities
- Reduce mortality from Coronary Heart Disease among the under 75s
- Reduce repeat admissions for elderly patients
- Reduce psychiatric readmissions; reduce increase in anti-depressant prescribing
- Increase number of elderly patients with complex needs receiving care at home
- Reduce admissions for primary diagnosis of COPD, Asthma, Diabetes, CHD
- Achieve reductions in the rates of attendance at Accident and Emergency
TARGETS, PERFORMANCE, ACCOUNTABILITY
Performance Management of Waiting Times

Improvement of Scottish waiting times has been supported by very strong central performance management through collaboration with NHS Boards. For example:

- monthly improvement trajectories towards targets are agreed with each Board Chief Executive
- regular review meetings are held
- where progress is not satisfactory binding recovery plans are agreed
- weekly performance management is introduced where required
- Board capacity plans can be assessed and amendments required
- tailored support and peer mentoring can be initiated
- additional funding is related to performance and to achieve best value
Scotland moved from a simple 18 months maximum waiting time for inpatients/daycases in 1991, to a portfolio of waiting time standards in 2014 covering:

- GP Access,
- Accident and Emergency,
- Stage of Treatment (outpatients, inpatients/daycases)
- Referral to Treatment (receipt of referral to commencement of treatment)
- Diagnostic Tests, Cancer,
- Child and Adolescent Mental Health,
- Psychological Therapies,
- Drug and Alcohol Treatment,
- Audiology
- Hip Fracture.
- IVF
The improvement of waiting times in Scotland has been supported by the implementation of a wide-ranging eHealth Strategy, covering, among other programmes: a unique patient identifier, the eReferral Programme, Digital imaging and extensive upgrades to IT systems.

Historically information systems in the NHS have managed discrete episodes of patient care and a great deal of NHS activity has not been recorded electronically. Boards are now implementing IT systems that can support the management of patients across entire pathways of care.

A suite of definitions is available to support consistent measurement and management of waiting times.

The 18 weeks referral to treatment standard was supported by an Information Strategy and an Information Delivery Team. Specific enhancements to the available information set were put in place, including: a unique care pathway number for each individual 18 week pathway; clinic outcome codes to identify when an 18 week pathway continues or has stopped; an onward referral data set to transfer pathway information between NHS organisations.
The Scottish Government has adopted and applied three conceptual approaches to managing and improving waiting times:

1. Queue
2. Pathway
3. Flow
Stage of treatment targets are essentially queue targets and to manage queues it is necessary to have queue information identifying the number of queues, the size of the queues, scheduling of the queues and variation in additions to and removals from the queues.
Queues are generally contained within pathways and referral to treatment targets measure the time between the start and finish of a pathway. To manage referral to treatment targets it is necessary to design and manage pathways effectively.
Elective or scheduled care targets are part of overall hospital and health care provision that includes unscheduled (for example accident and emergency) as well as scheduled care and is influenced by care outside of the hospital. To manage scheduled care targets it is necessary to take account of the ‘flows’ of both scheduled and unscheduled care patients through a hospital.
PLANNING & MANAGING WAITING TIMES
Stage of Treatment Targets are Queue Targets

• Stage of treatment targets are essentially queue targets
• For example a target for time from decision to treat to a cataract or hip replacement operation
• There are well established approaches to managing queues, supported by queuing theory.
• Queues that are not well managed are likely to incur additional costs and possibly impede clinical effectiveness
• Some of the key principles of good queue management can be summarised as follows:-
PLANNING & MANAGING WAITING TIMES
Critical Questions to Support Good Queue Management

1. **Do you have an optimum number of queues in a specialty?**

   Reducing and optimising the number of queues in a specialty is a **cost neutral** efficiency and quality gain.

2. **Do you have optimal scheduling of individual queues?**

   Achieving optimal scheduling and queue shape by admitting patients of similar clinical priority predominately in date order is a **cost neutral** efficiency and quality gain.
3. As far as possible has artificial variation (in supply) been smoothed and variation in patient led demand projected for and resourced.

Smoothing and managing variation is potentially a cost neutral efficiency and quality gain.

Smoothing variation in supply can provide significant gains through leave management and flexibility in annualised job plans.

It is possible to project patient led demand based on previous seasonality and random variation and then provide services to meet this demand on a monthly or weekly basis.

The greater the variation, the greater the level of ‘waste’ that has to be built in to achieve a target.
4. **Is the optimal size (range) for individual queues being maintained.**

There is a point beyond which a queue size is too large to deliver the required waiting time target, e.g. there is a ‘backlog’ of patients waiting.

A queue may be allowed to vary across a range between a low point and a high point as a means of managing variation in demand and supply.

Treating this backlog is a ‘one-off’ cost to improve efficiency and quality.
PLANNING & MANAGING WAITING TIMES
Critical Questions to Support Good Queue Management

5. **Is capacity balanced against demand for individual queues taking account of variation?**

There has to be sufficient capacity to meet demand, for example if there are 1000 additions to a queue over a year, there has to be the capacity to remove a 1000 from the queue over the year.

Variation over the year in both demand and activity will increase the capacity required, e.g. it may be necessary to provide a capacity of 1100 against an average annual demand of 1000 to manage weekly/monthly variation in additions and removals from the queue.

Achieving balance is a recurrent cost to improve efficiency and quality.
PLANNING & MANAGING WAITING TIMES
Critical Questions to Support Good Queue Management

6. Are there clear evidence based prospective trajectories against individual queues for (1) planned capacity/activity, (2) projected demand and (3) queue size/shape;

It is necessary to agree activity requirements that will delivery queue targets on an annual basis, based on competent plans/projections for demand/capacity and queue dynamics.

7. Is the actual position against the planned/projected position managed on a monthly/weekly basis with corrective action taken as required?

It is then necessary to manage against competent trajectories on a monthly/weekly basis and take corrective action where required.
PLANNING & MANAGING WAITING TIMES
A Health Board with a problem

1. Total number of patients on the waiting list at month end (census)
   Inpatients - NHSBOARD X - Trauma & Orthopaedic

   Source: New Ways data as at end of Jun12

2. Distribution of ongoing waits at Jun 2012
   Inpatients - NHSBOARD X - Trauma & Orthopaedic

   Source: New Ways data as at end of Jun12
PLANNING & MANAGING WAITING TIMES
A Health Board with a problem

3. Waiting List Activity - Additions to list & removals from list within month
Inpatients - NHSBOARD X - Trauma & Orthopaedic

4.b) Estimated total number of weeks to clear Waiting List at month end based on monthly Removals
Inpatients - NHSBoard X - Trauma & Orthopaedic by month

Source: New Ways data as at end of Jun12
PLANNING & MANAGING WAITING TIMES
A Health Board that is doing well

1. Total number of patients on the waiting list at month end (census)
   Inpatients - NHSBOARD Y - Trauma & Orthopaedic

2. Distribution of ongoing waits at Jun 2012
   Inpatients - NHSBOARD Y - Trauma & Orthopaedic

Source: New Ways data as at end of Jun 12
PLANNING & MANAGING WAITING TIMES
A Health Board that is doing well

3. Waiting List Activity - Additions to list & removals from list within month
Inpatients - NHSBoard Y - Trauma & Orthopaedic

4.b) Estimated total number of weeks to clear Waiting List at month end based on monthly Removals
Inpatients - NHSBoard Y - Trauma & Orthopaedic by month

Source: New Ways data as at end of Jun12
PLANNING & MANAGING WAITING TIMES

Does Reduced Waiting Times = Increased Demand?

Demand Trends 2006 to 2012
New Outpatients - NHS BOARD A - Trauma and Orthopaedics

Source: SMR00 and New Ways Data Warehouse
PLANNING & MANAGING WAITING TIMES
Does Reduced Waiting Times = Increased Demand?

Percentage Yearly Change in Referrals from SMR00, broken down into Quarters (patients given appointments) - Trauma and Orthopaedics for NHS Scotland and NHS BOARD A

Year Ending

Source: SMR00
PLANNING & MANAGING WAITING TIMES
How Seasonal or Random are Referrals?

Graph of Average Seasonality in SMR00 New Outpatient referrals from 2005 to 2012
Trauma and Orthopaedics for NHS BOARD A

Source: SMR00
PLANNING & MANAGING WAITING TIMES
Managing Variation is Critical

• “In a system where the demand and capacity are varying, the average capacity required to keep a queue under control will need to be greater than the average demand. The amount of capacity required will depend on the amplitude and mismatch of the variations and the maximum waiting time that can be tolerated.” (Silvester & Steyn)

• The majority of business cases fail to understand the reason for the persistent backlog and assume that the backlog is due to the average demand is greater than average capacity. (Silvester and Steyn)

• Smooth artificial variability and provide the resources to meet patient driven peaks in demand. (Litvak)
APPROPRIATENESS OF CARE

There should be a focus on the wider spectrum of health care

1. Demand on hospital care and challenges to elective care targets are influenced by the quality and extent of care outside the hospital and by the health status and behaviours of the population.

2. The extent and quality of primary care and the support for social care, for example support to carers, will have a direct impact on the resource requirement to deliver elective waiting time standards.

3. Successful health improvement actions will ultimately impact positively on elective waiting times, for example there is evidence that improved health and wellbeing in the early years will reduce adverse health impact in later years.

4. The more effective the relationship between Health Care and Social Care the more effective Health Care will be overall, particularly if there is meaningful progress towards the integration of health and social care.
APPROPRIATENESS OF CARE, An Example:
Musculoskeletal & Orthopaedic Quality Drive:
Spread and Sustainability of Five High Impact Changes

- Allied Health Professional Musculoskeletal Redesign – Get patients on the right pathway starting in the community
- Fracture Pathway Redesign – Patients only attend clinic if there is clinical need
- Enhanced Recovery – Optimising patient recovery after joint replacement
- Hip Fracture Care Pathway – Optimising care of frail older people
- Demand & Capacity Planning – Supporting strategic and operational decisions
AHP MSK Redesign – Get patients on the right pathway starting in the community

- 100,000 hits on NHS Inform MSK Website
- 12,000 MSK App downloads
- 5% of demand triaged to Return to Work and Leisure programmes
- Up to 20% reduction of referral into consultant led orthopaedic services

- 15% callers self select information only
- 13.5% of demand triaged to Self-Management
- Productivity increased-slot fill up to 95% efficiency.
- DNA cut from 14% to 5%
- Up to 20% reduction in MRIs

Outcomes captured electronically
APPROPRIATENESS OF CARE
Focus for Waiting Times Improvement

There should be a focus on:

FIRST: The Patient
SECOND: The Service
THIRD: The target

80:20 Rule – 80% OR MORE of the effort should be on improving the patient experience, increasing effectiveness (appropriate care) and increasing efficiency (queue; pathway; flow); 20% OR LESS should be expended on managing the target.
APPROPRIATENESS & ACCOUNTABILITY
The Scottish ‘Journey’

• **THE RIGHT CARE** – SIGN Guidelines, Clinical Audit (e.g. Athroplasty Project), Clinical Leadership,

• **THE RIGHT PROVIDER** – Workforce Development, 2020 Workforce Vision, Skill-mix, NHS Education Scotland, Modernising Medical Careers, AHP National Delivery Plan

• **THE RIGHT PATIENT** – 2020 Vision Route Map, Shifting the Balance of Care, Integrated health and social care legislation

• **THE RIGHT VENUE** – Service Configuration Strategies, Same Day Surgery, ‘local where possible, regional/national where necessary’

• **THE RIGHT TIME** – Removing Waste, Queue/Pathway/Flow, Increasing efficiency & effectiveness

• **ACCOUNTABILITY** – Political Direction, Executive Leadership, Clearly Defined Explicit Targets, Local Delivery Plans, Binding Improvement Trajectories, Performance Management, Partnership Working.
Improvement is always possible

Even with basic methods and tools it is possible to ‘win the war on waiting’ by continuously and systematically improving quality whilst at the same time actively planning and managing waiting times through proven methodologies.

Improving quality, safety and appropriateness of care is an inescapable obligation, delivering acceptable waiting times is an aspect of quality, a measure of efficiency and an indication of a patient focussed service.

Excessive waiting times can bring any healthcare system into disrepute. If Scotland had not achieved massively reduced waiting times, it would have been more difficult to maintain national attention on the quality agenda.

‘Rationing by waiting’ is the cruellest form of waiting.
Some Useful Websites

www.scotland.gov.uk

www.scotland.gov.uk/About/Performance/scotPerforms

www.show.scot.nhs.uk/

www.scotland.gov.uk/Topics/Health/Policy/2020-Vision

www.healthcareimprovementscotland.org

www.isdscotland.org/health-topics/waiting-times