

# 1000 LIVES O FYWYDAU

*Improving care, delivering quality*



## Reducing Harm from Falls

## Acknowledgements

This 'How to Guide' has been produced by the Change Agent Team at the National Leadership and Innovation Agency for Healthcare, based on work undertaken by members of the national Intermediate Care Community of Practice and supported by an Expert Reference Group chaired by Dr Jagadish Mallya, Consultant Physician.

## Date of publication

This guide was published in September 2010 and will be reviewed in April 2012. The latest version will always be available online on the programme's website: [www.1000livesplus.wales.nhs.uk](http://www.1000livesplus.wales.nhs.uk) (internet).

## The purpose of this guide

This guide has been produced to enable healthcare organisations and their teams to successfully implement a series of interventions to improve the safety and quality of care that their patients receive.

This 'How to Guide' must be read in conjunction with the following:

- Leading the Way to Safety and Quality Improvement
- How to Improve

Further guides are also available to support you in your improvement work:

- How to Use the Extranet
- A Guide to Measuring Mortality
- Safe Communication - SBAR and Safety Briefings
- Learning to Use Patient Stories
- Using Trigger Tools
- Reducing Patient Identification Errors

These are available from the 1000 Lives Plus office, or online at [www.1000livesplus.wales.nhs.uk](http://www.1000livesplus.wales.nhs.uk)

Where reference is made to 1000 Lives Plus, this includes the work undertaken as part of the 1000 Lives Campaign and the second phase of this improvement programme - 1000 Lives Plus.

The guide uses examples from the former NHS organisational structures, and Where possible this has been acknowledged.

We are grateful to The Health Foundation for their support in the production of this guide.

## Improving care, delivering quality

The 1000 Lives Campaign has shown what is possible when we are united in pursuit of a single aim: the avoidance of unnecessary harm for the patients we serve. The enthusiasm, energy and commitment of teams to improve patient safety by following a systematic, evidence-based approach has resulted in many examples of demonstrable safety improvement.

However, as we move forward with 1000 Lives Plus, we know that harm and error continue to be a fact of life and that this applies to health systems across the world. We know that much of this harm is avoidable and that we can make changes that reduce the risk of harm occurring. Safety problems can't be solved by using the same kind of thinking that created them in the first place. To make the changes we need, we must build on our learning from the Campaign and make the following commitments:

- Acknowledge the scope of the problem and make a clear commitment to change systems.
- Recognise that most harm is caused by bad systems and not bad people.
- Acknowledge the improving patient safety requires everyone on the care team to work in partnership with one another and with patients and families.

The national vision for NHS Wales is to create a world-class health service by 2015: one which minimises avoidable, death, pain, delays, helplessness and waste. This guide will help you to take a systematic approach and implement practical interventions that can bring that about. The guide is grounded in practical experience and builds on learning from organisations across Wales during the 1000 Lives Campaign and also on the experience of other Campaigns and improvement work supported by the Institute for Healthcare Improvement (IHI).

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## Introduction

Falls are recognised as a major cause of disability and the leading cause of mortality resulting from injury in people aged over 75 in the UK.<sup>1</sup> Each year over 700,000 older people in the United Kingdom attend Hospital Accident and Emergency Departments following a fall and many more people attend minor injury departments or contact ambulance services for assistance.<sup>2</sup> The Welsh Ambulance Service NHS Trust reported that, between September 2008 and September 2009, 16% of all calls were due to falls from standing height. One in three of these patients are not transported to hospital but are left at home.

It is estimated that 35% of the over 65s and 45% of the over 80s will fall each year, and that 60% of people living in residential homes will fall repeatedly. 3% of people who fall will be admitted to an in-patient bed, accounting for over 4 million bed days in England alone<sup>3</sup>. Falls may also result in loss of confidence, activity restriction, reduced functional ability and thus increased dependency on carers and services.

The vast majority of fractures in older people are as a result of falls. One in two women and one in five men will experience an osteoporotic fracture. Over 12,000 osteoporotic fractures occur in Wales each year and over 4,200 of these are hip fractures. 50% of people who sustain a hip fracture have had a previous fragility fracture. 7% of people die within a month of this injury, with 25% dying within the following year. Half of the survivors fail to regain their previous level of independence.<sup>4</sup> The current hospital cost of treating hip fractures is estimated to be £12,163 per patient.<sup>5</sup> Medical and Social for the first two years following a hip fracture is estimated to be £13,000<sup>6</sup>, and the estimated life-time cost of residential and nursing home placement following hip fracture is thought to be in the region of £64,000.<sup>7</sup>

Falls prevention can reduce the number of falls by between 15% and 30%.<sup>8</sup> The Clinical Effectiveness and Evaluation Unit of the Royal College of Physicians recognised that well organised services, based on National Standards and evidence based guidelines, can prevent falls and reduce death and disability from fractures.<sup>9</sup> However, the results of their audit against these standards across the UK showed that the large variation in the quality of services observed in 2005 were still present in 2008, with important deficiencies in the commissioning and provision of care.

There is a plethora of evidence and literature about the impact that reducing falls and fractures and improvement in bone health can have. There are a range of services and professionals across Wales that focus to some extent on falls and bone health. However, audit reports and anecdotal evidence tell us that falls prevention and bone health programmes are not well co-ordinated and are delivered in an ad hoc way. We also know that there are committed and motivated individuals and teams across health and social care, the voluntary sector and Local Authorities that really want to improve services for people who have fallen or are at risk of falling.

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## References

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- <sup>1</sup> *Scuffham and Chapman 2002, as cited in National Institute of Clinical Excellence, Clinical practice guideline for the assessment and prevention of falls in older people. November 2004*
- <sup>2</sup> *Healthcare Quality Improvement Partnership, National Audit of the Organisation of Services for Falls and Bone Health of Older People, March 2009*
- <sup>3</sup> *Department of Health, Falls and fractures: Developing a local joint strategic needs assessment, 2009.*
- <sup>4</sup> *Welsh Assembly Government, National Service Framework for Older people in Wales, 2006*
- <sup>5</sup> *Lawrence et al. The current hospital costs of treating hip fractures. Injury 2005; 36: 88-91*
- <sup>6</sup> *Torgerson et al. The economics of fracture prevention. Effective management of osteoporosis. Ch 9, p112, London 2001*
- <sup>7</sup> *Johansen et al. Outcome following hip fracture: post discharge residence and long term mortality. Age and Ageing, p 1-3, June 28, 2010.*
- <sup>8</sup> *Department of Health, Falls and fractures: Developing a local joint strategic needs assessment, 2009.*
- <sup>9</sup> *Healthcare Quality Improvement Partnership, National Audit of the Organisation of Services for Falls and Bone Health of Older People, March 2009.*

## Why use care bundles?

The Stroke Collaborative successfully used the Institute of Healthcare Improvement's Model for improvement and care bundle methodology to drive forward improvements in stroke services. It has been agreed that this methodology has the potential to achieve for falls what it has achieved for stroke services, i.e. a greater level of compliance with recognised and published guidance. As with stroke treatment, there are a range of published guidelines and standards for falls prevention and bone health improvement which lend themselves to a care bundle approach.

Care bundles are grouping of best practice in relation to a specific health problem or disease that individually improve care, but when applied together may result in a substantially greater improvement. The science supporting each component of the bundle is sufficiently established to be considered the standard of care.

The care bundle is not intended as a comprehensive list of all actions within a process, nor is it a care pathway. What it does is reduce the opportunity for omission of those elements of a process that are thought to be essential.

The aim of using care bundles in the care planning and management of people who have fallen will be to ensure that core assessments and interventions, are delivered consistently and in line with current guidance. It is for every person who is recognised to have fallen from standing height, regardless of where they seek help or are receiving care within the health and social care system.

It is thought that this could be delivered using existing services for the most part, and that the method of implementing the bundles could be adapted locally, based on the services available in each area.

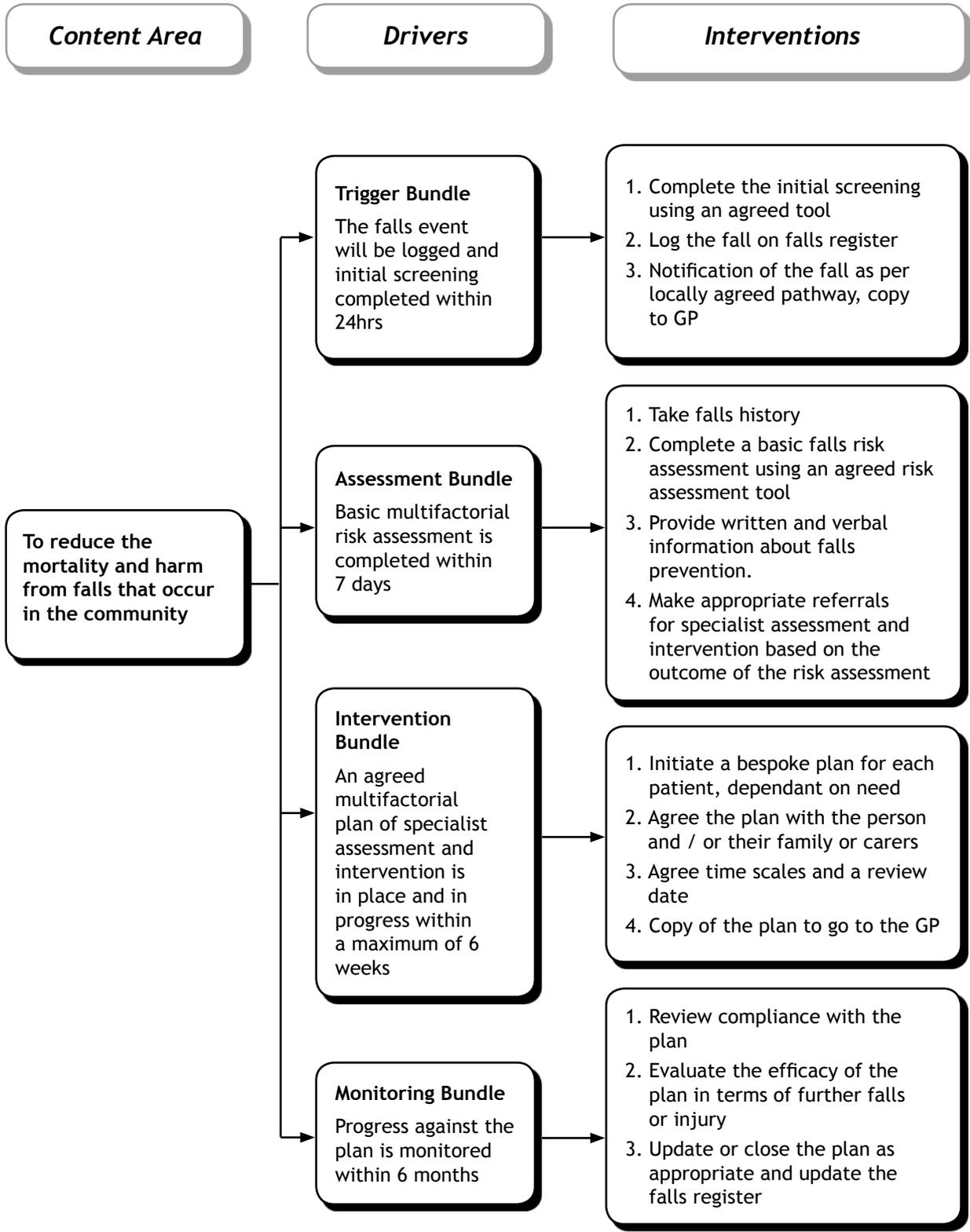
## Who will be included?

The client group that the Falls Collaborative will focus on is adults that fall from standing height in the community. This will include people living in nursing and residential homes.

## Who will not be included?

- People who fall from a height (e.g. from a ladder or bridge).
- People who fall as a result of sporting or leisure activities.
- People whose fall is secondary to a medical emergency, such as a heart attack or stroke.
- Patients who fall in hospital.

# Reducing Harm from Falls Driver Diagram



## Getting Started

### ***Have you set up your team?***

You need to consider three different dimensions:

- Organisational level leadership
- Clinical or technical expertise
- Frontline leadership and team membership

*See the 'Leading the Way to Safety and Quality Improvement' Guide; and Appendix B for further information.*

### ***Do you know how you will measure outcomes?***

For this content area, you should use the following outcome measures:

- Number of calls for 999 ambulances as a result of falls from standing height.
- Number of hip fractures.

*See Appendix A for further information.*

### ***Do you and your team understand how to apply the Model for Improvement?***

The Model for Improvement is a fundamental building block for change and you need to understand how to use it to test, implement and spread the interventions in this guide.

*See the 'How to Improve' guide and Appendix C for further information.*

### ***How are you going to measure process reliability?***

In order to improve outcomes for your patients you need to demonstrate you are using these interventions reliably. This means that all the elements of the interventions are performed correctly on 95% or more of the occasions when they are appropriate. You need to do this by using the process measures in this guide.

*See the 'How to Improve' guide and Appendix A for a summary of all process measures.*

### ***How will you share your learning?***

Contact 1000 Lives Plus for details of mini-collaboratives and other ways to share your learning and to learn about the progress of other teams.

## Drivers and Interventions

This section details the interventions highlighted in the driver diagram which evidence has shown to be effective in this content area. You should use the Model for Improvement to test, implement and spread each intervention, using the listed process to monitor progress.

### Driver: Trigger Bundle

1. Complete the initial screening using an agreed tool
2. Log the fall on the central falls register
3. Notify the patient's GP of the fall

#### **Measures:**

For this intervention, use the following process measures:

- % Compliance with the Trigger Bundle



### Applying the Model for Improvement

#### ***What are we trying to achieve?***

The National Institute for Clinical Excellence (NICE, 2004) states that a history of one or more falls is a significant risk factor and predictor of further falls. NICE suggest that a case finding approach based on a history of falls be taken, however as a starting point for the collaborative it is agreed that a falls event, wherever this happens, should be the trigger for further falls risk assessment.

#### ***How will we know that the change has been an improvement?***

Compliance with the Trigger bundle will be measured and reported locally and nationally.

#### ***What changes can we make that will be an improvement?***

##### **Development of a falls register**

Ideally, a central falls register will be developed to show the falls history and interventions that have taken place for each person that falls. However, it is recognised that this is a long term aim and in the short term, teams will be asked to develop their own local registers for their client group, making links with other teams and localities wherever possible.

Until this is established it may be necessary to develop local databases for clusters of General Practices. Again, support for this will be available from NLIAH.

#### **Identification of a screening tool**

A screening tool will be identified and agreed that can be used by health and social care staff in any setting in which the person that has fallen may present. This may include a person's own home, a 999 ambulance call, residential and nursing homes or Accident and Emergency departments. The aim of the screening tool will be to screen out those people for whom further falls assessment is not necessary, for example, simple and explainable trips or falls as result of an epileptic fit in the case of a known epileptic. There are many examples of screening tools in use and the collaborative will provide the opportunity to share experience and evaluate use these tools.

#### **Identification of local pathways**

For those people who are registered on the falls log, assessment and intervention will need to follow. Locally agreed pathways will need to be identified to facilitate this. These pathways will be dependant on the configuration of local services.

#### **Training**

Training in the completion of the falls log and the initial screening will be provided to a wide range of health and social care staff who are in direct contact with patients.

#### **GPs will be aware of the full falls history of their patients**

The GP is the one healthcare professional that is constant in the person's life and therefore should be aware of the full falls history of their patients.

***Example***

In Hywel Dda Health Board, a falls prevention initiative, 'Camu Mlaen' funded by the Welsh Assembly Government's Independence and Well Being Grant has adopted a case finding approach. The 'Camu 'Mlaen' Co-ordinator liaises with the Accident and Emergency departments in Carmarthenshire and the Telecare / Careline service providers to identify all fallers over the age of 75 years who remain at home following the incident or who are discharged home from hospital.

These individuals are contacted via a letter with a falls information leaflet and an invitation for a falls assessment in the individual's home. Once a home visit is accepted, the Co-ordinator liaises with the client's GP in order to ascertain any clinical indicators which may predispose to falls. The Co-ordinator also encourages the GP practice to read code each fall incident into the patient's electronic record. Read coding such information is not currently routine practice for GPs as Falls and Bone Health does not feature in the nGMS contract.

## Driver: Assessment Bundle

1. Take a falls history.
2. Complete a basic falls risk assessment using an agreed assessment tool.
3. Provide written and oral information about falls prevention.
4. Make appropriate referrals for specialist assessment and intervention, based on the outcome of the risk assessment.

### **Measures:**

For this intervention, use the following process measure:

- % Compliance with the assessment bundle



## Applying the Model For Improvement

### ***What are we trying to achieve?***

The NICE Clinical Guideline 21 (NICE, 2004) for the assessment and prevention of falls in older people states that the purpose of assessment is to identify those at risk of falling in order to target effective interventions. According to standard 8, falls and fractures in the NSF for older people in Wales (WAG, 2006), preventing falls in older people depends on identifying those people most at risk of falling and co-ordinating appropriate preventative action.

The aim of this bundle is to ensure that a basic falls risk assessment is completed for any patient who has a fall and is registered on the falls log.

The outcome of this falls risk assessment will allow prioritised and targeted interventions to be initiated with the aim of preventing further falls whilst maximizing the person's independence and confidence to undertake the normal activities of daily living.

### ***How will we know that the change has been an improvement?***

Compliance with the assessment bundle will be measured and reported locally and nationally. The numbers of people referred on for specialist assessment and / or intervention will increase. Gaps in service provision will be highlighted.

### ***What changes can we make that will be an improvement?***

#### **Use of an assessment tool in all care settings**

There are a variety of validated assessment tools that can be used by a range of frontline health and social care practitioners. Each team will be asked to identify an assessment tool that meets their needs and addresses the eleven core risk factors highlighted in all the available guidance. This will identify people who need further or more specialist assessments and / or interventions.

The assessment will be in accordance with Standard 8 of the NSF for older people in Wales (WAG, 2006), and NICE Clinical Guideline 21 (NICE, 2004), and the Department of Health Guidance on Falls and Fractures (DoH, 2007) and will include assessment of:

- falls history including number of falls during the previous six months
- gait and balance, mobility and muscle strength
- osteoporosis risk
- a person's perceived functional ability and fear of falling
- visual impairment
- cognitive impairment and neurological examination
- urinary continence
- home hazards
- cardiovascular examination
- medication
- nutritional status

The collaborative will aim to agree a standard tool to be used in all community settings in order to promote a consistent approach to assessment in the longer term. Examples of existing tools can be found at [www.1000livesplus.wales.nhs.uk/](http://www.1000livesplus.wales.nhs.uk/)

Where lack of compliance with the bundle is due to the lack of appropriate services to receive the referral, this will be highlighted within the data capture. The data capture tool will aim to demonstrate gaps in service that can be used locally to inform service planning, as well as to demonstrate compliance with the care bundle.

## Frequently asked questions

### ***Who will do the assessment?***

Each Health Board will agree how the assessment will be undertaken and who will do it locally. This will be dependant on services available in their locality. For example, some areas may have specialist falls services or intermediate care teams, others may rely on district nursing or other services.

### ***What happens if the assessment shows that the person requires a more specialist assessment?***

Referral criteria and processes to specialist services will be agreed locally. Where there are gaps in service, or lack of capacity to respond to demand, this will be captured and can be used to inform future planning of services.

### ***What verbal and written information will be given to the person?***

A standard will be set for the core information that will be provided in written and verbal format to the person that has fallen and their family and carers that includes where to seek further advice and assistance, how to cope if they have a fall in the future e.g. how to summon help and how to get up and use technology to avoid prolonged periods of lying on the floor following a fall, due to inability to get up unaided or summon help (long lie scenarios).

### ***Practice example***

The Vale locality in Cardiff have implemented a Falls-related Ambulance Service across the healthcare community.

This service ensures that the details of patients who call 999 for falls, that do not warrant an ambulance attendance due to no physical injuries or patients refusal to attend an Accident & Emergency department, are passed to the Clinical Referral Centre (CRC).

The information received (i.e. the ambulance assessment and evaluation of the patient risk status) is forwarded to the CRC using a dedicated proforma. Dependant on the patient's area of residence, the proforma is then forwarded by the CRC to either the patients GP, the Cardiff East Locality Team (CELT), the Elderly Care Assessment Service (ECAS) or the Penarth Integrated Care Team (PICT). The GP, or the team who have received the referral, then follow the patient up with a falls assessment and appropriate interventions.

This initiative has strengthened the interface and communication links between healthcare professionals, together with identifying high risk patients within the community to reduce the patient's falls risk factors. This service supports NICE guidance and also complies with criteria set out by the Welsh Ambulance Service Trust (WAST), which states that:

*“A patient who does not wish to travel to A&E does not relinquish the attending crew's responsibility to find alternative pathways to address patients' actual clinical and social needs.”*

## Driver: Intervention Bundle

1. Initiate a bespoke plan for each patient, dependant on need.
2. Agree the plan with the person and / or their family or carers.
3. Agree time scales and a review date.
4. Copy of the plan to go to the GP.

### **Measures:**

For this intervention, use the following process measures:

- % Compliance with the Intervention Bundle



## Applying the Model For Improvement

### ***What are we trying to achieve?***

The aim of the Intervention bundle is to ensure that people who have fallen have access to effective interventions based on their identified risk. This includes screening people who have sustained a fragility fracture for osteoporosis and initiating secondary fracture prevention in line with NICE Technology Appraisals 87 (NICE, 2005) and 161 (NICE, 2008).

The Department of Health (DoH, 2007) states that multi-factorial targeted interventions based on risk assessment are likely to include optimising medication, reducing visual disability, avoiding unnecessary environmental hazards in the context of lifestyle advice, and support to prevent frailty, preserving bone health, and promoting independence. They advise that the most effective component of multi-factorial interventions is therapeutic exercise. The Royal College of Physicians in their audit report in 2009 (RCP, 2009) recommend that widespread and accessible evidence based exercise programmes and targeted use of validated home hazard assessments and interventions should form part of commissioning strategies.

The nature of the disease progression of osteopenia and osteoporosis provide an opportunity for intervention in up to 50% of future hip fracture cases. Studies from the UK and abroad consistently report that half of hip fracture patients have a history of previous, clinically apparent, fragility fracture, such as the wrist, ankle or vertebra. Treatment of osteoporosis from the time of the first fracture in these patients would have prevented around half of the subsequent hip fractures (DoH, 2007).

Evidence suggests that single interventions alone are not as effective as multifactorial intervention programmes (NICE, 2004). Therefore this bundle aims to promote a multifactorial approach to delivering a targeted response to risk factors identified.

### ***How will we know that the change has been an improvement?***

Compliance with the intervention bundle will be measured and reported locally and nationally. The numbers of people receiving specialist assessment and / or intervention will be monitored.

### ***What changes can we make that will be an improvement?***

**A bespoke plan will be initiated for each patient.**

This plan will include one or more of the following elements, dependant on needs identified as part of the assessment bundle:

- Diagnosis and management of osteoporosis
- Strength and balance training
- Home hazard assessment and safety intervention/modification including footwear
- Correction of visual impairment
- Medication review with modification or withdrawal
- Appropriate medical referral where cardiovascular or neurological problems are identified
- Continence training
- Nutritional assessment and advice
- Therapeutic interventions to improve the older person's perceived functional ability and minimise fear of falling
- Where cognitive impairment is recognised, refer for ongoing support and adapt the falls plan to reflect the level of cognition

*(N.B. The elements highlighted in bold are recognised as having the strongest evidence base.)*

The plan will be agreed with the person and / or their family or carers, and will include timescales and a review date. NICE Clinical Guideline 21 (NICE, 2004) suggests that professionals involved in the assessment and prevention of falls should discuss which changes a person is willing to make to prevent falls and that individually tailored interventions are more effective than standard or group delivered programmes.

**A copy of the plan will be sent to the person's General Practitioner.**

The GP is the one healthcare professional that is constant in the person's life and therefore should be fully aware of the outcomes of any assessments and planned interventions. There will be a local agreement as to who is responsible for sending the copy of the plan to the GP.

**A database of services able to meet the needs identified above that are available by geographical area will be developed.**

Local referral protocols and processes will be agreed to provide access to required services identified as part of the bespoke plan.

## Frequently asked questions

### ***Who will be responsible for agreeing the plan and monitoring compliance with the assessment bundle?***

The person that makes the referrals following the completion of the assessment bundle will complete the database and be responsible for monitoring that the referrals have been received, acted upon and outcomes recorded on the patient's plan.

## Driver: Monitoring Bundle

1. Review compliance with the plan.
2. Evaluate the efficacy of the plan in terms of further falls or injury.
3. Update or close the plan as appropriate.

### **Measures:**

For this intervention, use the following process measures:

- % Compliance with the Monitoring Bundle



## Applying the Model For Improvement

### ***What are we trying to achieve?***

The aim of this bundle is to provide a structured review of the effectiveness and sustainability of interventions.

### ***How will we know that the change has been an improvement?***

Level of compliance with the plan will be monitored. The number of falls the person has experienced during this six months will be compared with the number of falls experienced during the six months before being registered on the risk log and commencing the falls prevention process. We will also be able to determine whether people who have fallen in the past now have access to the care and services that they should have had, as recommended within the bundles.

### ***What changes can we make that will be an improvement?***

Falls experienced during the six months prior to being registered on the falls register will be recorded as part of the falls history in the assessment bundle.

A tracking process linked to the falls register will be developed locally and will include a trigger to prompt a review of each person registered after a six month period.

A standard reporting structure will be developed to enable local and national reports on the outcomes of the falls collaborative.

## Helpful Resources

Welsh Assembly Government. National Service Framework for Older People in Wales. 2006. Available for download from: [www.wales.nhs.uk/sites3/documents/439/NSFforOlderPeopleInWalesEnglish.pdf](http://www.wales.nhs.uk/sites3/documents/439/NSFforOlderPeopleInWalesEnglish.pdf)

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The Chartered Society of Physiotherapy. Audit pack: Guideline for the Collaborative, Rehabilitative Management of Elderly People who have Fallen. Available for download from: [www.csp.org.uk/uploads/documents/csp\\_falls\\_audit2.pdf](http://www.csp.org.uk/uploads/documents/csp_falls_audit2.pdf) [www.csp.org.uk/uploads/documents/csp\\_falls\\_audit2.pdf](http://www.csp.org.uk/uploads/documents/csp_falls_audit2.pdf)

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## Appendices

### Appendix A - Measures and Definitions

Process Measure	Operational definition
% Compliance with the Trigger Bundle	<ol style="list-style-type: none"> <li>1. Determine the denominator: the total number of patients logged on the falls register in one month.</li> <li>2. Determine the numerator: the number of patients for whom there has been a notification of registration, for example to the GP, within 24 hours in one month.</li> <li>3. Calculate the care bundle compliance by dividing the numerator by the denominator and multiplying the result by 100.</li> </ol>
% Compliance with the Assessment Bundle	<ol style="list-style-type: none"> <li>1. Determine the denominator: the total number of patients logged on the falls register in one month.</li> <li>2. Determine the numerator: the number of patients fully compliant within 7 days with the assessment bundle in one month.</li> <li>3. Calculate the care bundle compliance by dividing the numerator by the denominator and multiplying the result by 100.</li> </ol>
% Compliance with the Intervention Bundle	<ol style="list-style-type: none"> <li>1. Determine the denominator: the total number of patients logged on the falls register in one month.</li> <li>2. Determine the numerator: the number of patients fully compliant within 6 weeks with the intervention bundle in one month.</li> <li>3. Calculate the care bundle compliance by dividing the numerator by the denominator and multiplying the result by 100.</li> </ol>
% Compliance with the Monitoring Bundle	<ol style="list-style-type: none"> <li>1. Determine the denominator: the total number of patients that have been logged on the falls register for 6 months identified in one month.</li> <li>2. Determine the numerator: the number of patients fully compliant within 6 months with the monitoring bundle in one month.</li> <li>3. Calculate the care bundle compliance by dividing the numerator by the denominator and multiplying the result by 100.</li> </ol>

Outcome measure	Operational definition
Number of calls for 999 ambulances as a result of falls from standing height	Total number of 999 AMPDS Code 17, excluding code 17B02 (Falls>6ft) Data Source: Welsh Ambulance Services Trust
Number of hip fractures registered on the National Hip Fracture Data Base	Total number of hip fractures in the over 65 year age group Data Source: National Hip Fracture Data base

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## Appendix B - Setting up your team

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Achieving improvements that reduce harm, waste and variation at a whole-organisation level needs a team approach: one person working alone, or groups of individuals working in an unco-ordinated way will not achieve it and this applies equally at all organisational levels.

Whether your improvement priorities relate to 1000 Lives Plus content areas, national intelligent targets or other local priorities, you need to consider three different dimensions in putting your team together:

- Organisation level leadership.
- Clinical or technical expertise.
- Frontline leadership.

There may be one or more individuals on the team working in each dimension, and one individual may fill more than one role, but each component should be represented in order to achieve sustainable improvement.

### ***Organisation level leadership***

An Executive, or equivalent level Director, should always be given delegated accountability from the Chief Executive for a specific content area; and all staff working on the changes should know who this is. This individual needs sufficient influence and authority to allocate the time and resources necessary for the work to be undertaken. It is likely that accountability will be further delegated to Divisions, Clinical Programme Groups or Directorates and this can help to build ownership and engagement at a more local level. However, it is essential that the leader has full authority over the areas involved in achieving the improvement aim. As changes spread more widely, crossing organisational boundaries, appropriate levels of delegation will need to be reviewed.

When working with frontline teams, it is essential for organisational level leaders to have an understanding of the improvement methodology and to base conversations around the interpretation of improvement data. Reporting of progress to higher organisational levels should also use a consistent data format so that the Executive level leader can report to the Board on progress.

### ***Clinical/Technical Expertise***

A clinical or technical expert is someone who has a full professional understanding of the processes in the content area. It is critical to have at least one such champion on the team who is intimately familiar with the roles, functions, and operations of the content area. This person should have a good working relationship with colleagues and with the frontline leaders, and be interested in driving change in the system. It is important to look for clinicians or technical professionals who are opinion leaders in the organisation (individuals sought out for advice who are not afraid to try changes).

Patients can provide expert advice to the improvement team, based on their experience of the system and the needs and wishes of patients. A patient with an interest in the improvement of the system can be a useful member of the team.

Additional technical expertise may be provided by an expert on improvement methodology, who can help the team to determine what to measure, assist in the design of simple, effective measurement tools, and provide guidance on the design of tests.

### ***Frontline leadership***

Frontline leaders will be the critical driving component of the team, assuring that changes are tested and overseeing data collection. It is important that this person understands not only the details of the system, but also the various effects of making changes in the system. They should have skills in improvement methods. This individual must also work effectively with the technical experts and system leader. They will be seen as a bridge between the organisation leadership and the day-to-day work.

Frontline leaders are likely to devote a significant amount of their time to the improvement work, ensuring accurate and timely data collection for process and outcome measures related to the frontline team.

### ***Characteristics of a good team member***

In selecting team members, you should always consider those who want to work on the project rather than trying to convince those that do not. Some useful questions to consider are the following:

- Is the person respected for their judgment by a range of staff?
- Do they enjoy a reputation as a team player?
- What is the person's area of skill or technical proficiency?
- Are they an excellent listener?
- Is this person a good verbal communicator within and in front of groups?
- Is this person a problem-solver?
- Is this person disappointed with the current system and processes and passionately want to improve things?
- Is this person creative, innovative, and enthusiastic?
- Are they excited about change and new technology?

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## Appendix C - The Model for Improvement

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Successful improvement initiatives don't just happen - they need careful planning and execution. There are many things to consider and techniques to employ, which are captured in the driver diagram on page 27. The rest of this section explains the primary drivers and where to get more help in using them.

In any improvement initiative you need to succeed in three areas. You need to generate the *Will* to pursue the changes, despite difficulties and competing demands on time and resources. You need the good *Ideas* that will transform your service. Finally you need to *Execute* those ideas effectively to get the change required.

### Will

The interventions you need to build Will are explained in the 'Leading the Way to Safety and Quality Improvement' and 'How to Improve' guides. They concentrate on raising the commitment levels for change and then providing the project structure to underpin improvement approaches. Spreading changes to achieve transformative change across the whole health system requires strong leadership. We need to create an environment where there is an unstoppable will for improvement and a commitment to challenge and support teams to remove any obstacles to progress.

### Ideas

The interventions in this guide describe ideas which evidence shows to be effective for achieving changes that result in improvements. It gives examples from organisations that have achieved them and also advice based on their experience. Methods and techniques for generating new ideas or innovative ways to implement the evidence can be found in the 'How to Improve' guide and other improvement literature.

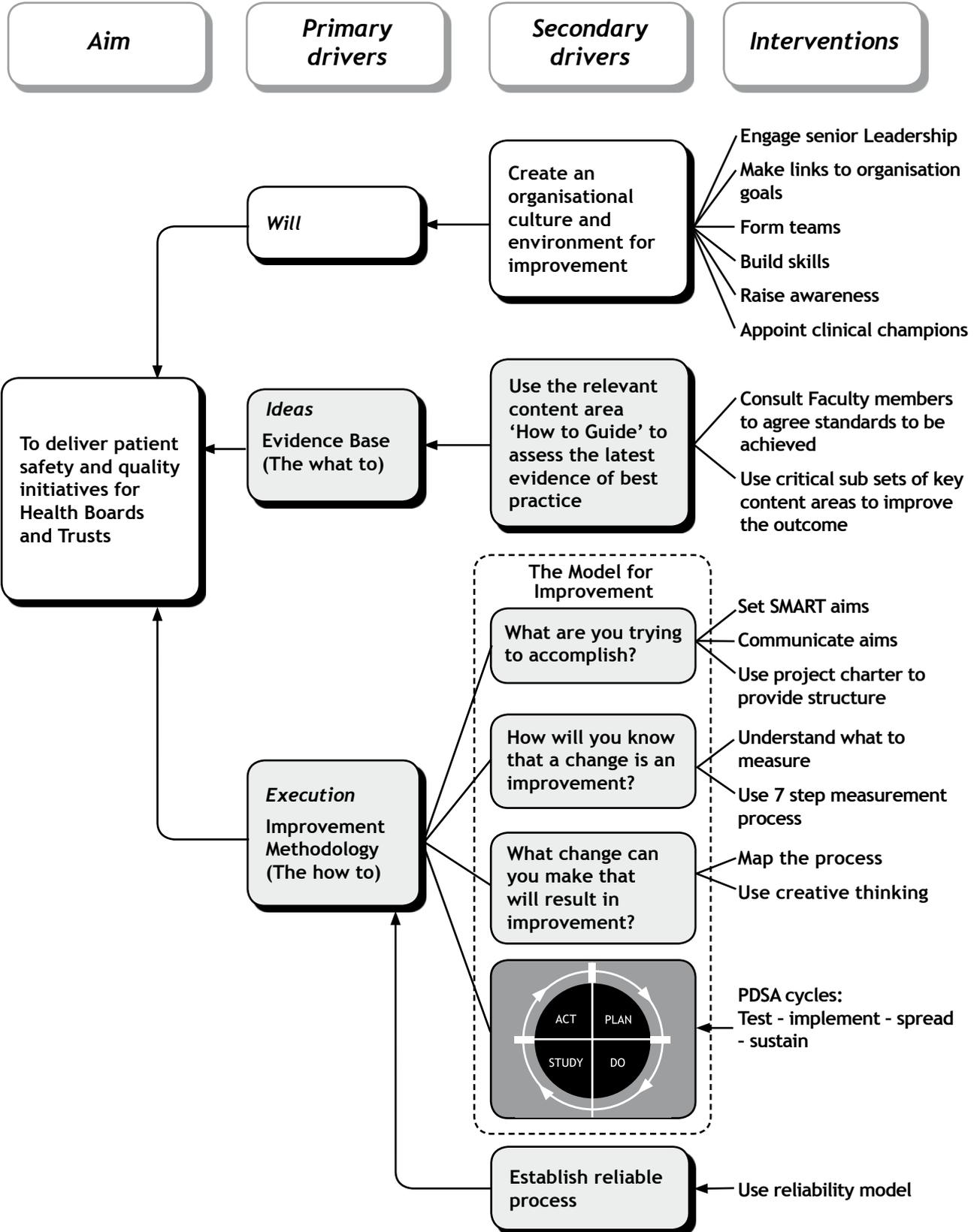
### Execution

However, to bring these ideas into routine practice in your organisation, it is essential that you test the interventions and ensure that you have achieved a reliable change in your processes before attempting to spread the change more widely.

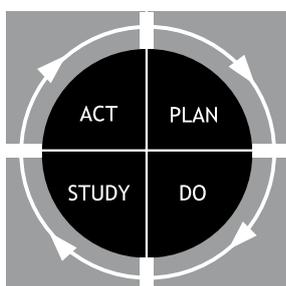
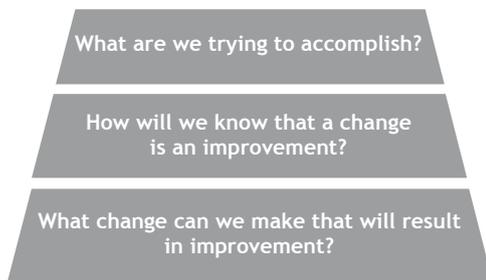
1000 Lives Plus uses the Model for Improvement (MFI) which is a proven methodology as the basis for all its improvement programmes. It requires you to address three key questions and then use Plan-Do-Study-Act (PDSA) cycles to test a change idea. By doing repeated small-scale tests, you will be able to adapt change ideas until they result in the reliable process improvement you require. Only then are you ready to implement and spread the change more widely.



# Model for Improvement Driver Diagram

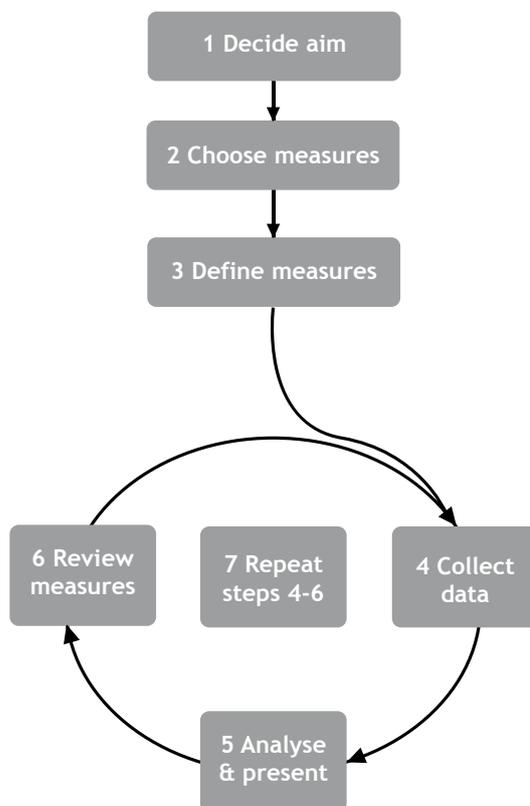


### Model for Improvement-PDSA Cycle



For more guidance on using the Model for Improvement, see the 'How to Improve' guide.

### Seven Steps to Measurement



One area that bears extra attention is measurement because we have found that this is often the Achilles heel of improvement projects. When measuring your progress, follow the Seven Steps to Measurement shown on page 28 and covered in more detail in the 'How to Improve' Guide.

The key is to go round the Collect-Analyse-Review cycle frequently:

**Collect** your data

**Analyse** - turn it into something useful like a run chart

**Review** - meet to decide what your data is telling you and then take action

Successful improvement projects all have clear aims, robust measurement and well-tested ideas. Use the 'How to Improve' guide to ensure your projects have all three.

### ***What are we trying to accomplish?***

You will need to set an aim that is Specific, Measurable, Achievable, Realistic and Time-bound (SMART). Everyone involved in the change needs to understand what this is and be able to communicate it to others.

### ***How will we know that change is an improvement?***

It is essential to identify what data you need to answer this question and how to interpret what the data is telling you. The improvement methodology 'How to Guide' provides detailed information on the tools, tips and information you need to achieve this, and includes the following advice:

**Plot data over time** - Tracking a few key measures over time is the single most powerful tool a team can use.

**Seek usefulness, not perfection.** Remember, measurement is not the goal; improvement is the goal. In order to move forward to the next step, a team needs just enough data to know whether changes are leading to improvement.

**Use sampling.** Sampling is a simple, efficient way to help a team understand how a system is performing.

**Integrate measurement into the daily routine.** Useful data is often easy to obtain without relying on information systems.

**Use qualitative and quantitative data.** In addition to collecting quantitative data, be sure to collect qualitative data, which is often easier to access and highly informative.

**Understand the variation that lives within your data.** Don't over react to a special cause and don't think that random movement of your data up and down is a signal of improvement.

***What change can we make that will result in improvement?***

The interventions in this guide describe a range of change ideas that are known to be effective. However, you need to think about your current local systems and processes and use the guide as a starting point to think creatively about ideas to test. The improvement methodology guide gives more advice to support you in generating ideas.

Spreading changes to achieve transformative change across the whole health system requires strong leadership. We need to create an environment where there is an unstoppable will for improvement and a commitment to challenge and support teams to remove any obstacles to progress. The guide on 'Leading the Way to Safety and Quality Improvement' gives detailed information on interventions that will support this. However, the Model for Improvement, PDSA cycles and process measurement lie at the heart of the transformative change we seek.

# 1000 LIVES O FYWYDAU



## *Improving care, delivering quality*

If we can improve care for **one person**,  
then we can do it for **ten**.

If we can do it for ten,  
then we can do it for a **100**.

If we can do it for a 100,  
we can do it for a **1000**.

And if we can do it for a 1000,  
we can do it for **everyone in Wales**.