

Newcastle JSNA: Falls

October 2008

What do we know?

National

According to the **National Service Framework for Older People** (DH, 2001)¹:

- Falls are a major cause of disability and the leading cause of mortality due to injury in older people aged over 75 in the UK.
- Falls are the leading cause of injury-related hospitalisation in older people and can result in admission to long term care.
- Up to 14,000 people a year die in the UK as a result of an osteoporotic hip fracture.
- One in three women and one in twelve men over 50 are affected by osteoporosis and almost half of all women experience an osteoporotic fracture by the time they reach the age of 70.
- Hip fractures cost the NHS in England around £1.7 billion (estimated at 45% acute care, 50% social care and long term hospitalization, 5% drugs and follow up).
- Problems indirectly associated with falls include:
 - psychological problems
 - loss of mobility and possible social isolation
 - increased dependency and disabilities
 - hypothermia
 - pressure-related injury
 - infections.
- Falls are often a common symptom of an underlying health problem.

Risk Factors

- A number of risk factors were identified that may lead to falls:
Intrinsic risk factors include:
 - balance, gait or mobility problems including those due to degenerative joint
 - disease and motor disorders such as stroke and Parkinson's disease
 - taking four or more medications, in particular centrally sedating or blood pressure lowering medications
 - visual impairment
 - impaired cognition or depression
 - postural hypotension.

¹ [National Service Framework for Older People](#), DH, 2001

Risk factors in the home environment include:

- poor lighting, particularly on stairs
 - steep stairs
 - loose carpets or rugs
 - slippery floors
 - badly fitting footwear or clothing
 - lack of safety equipment such as grab rails
 - inaccessible lights or windows.
- Age (with those over 90 at particular risk) ([Fleming, 2008](#)) and lone status ([Kharicha et al, 2007](#)) are also highlighted as risk factors

Interventions proven to reduce falls

- Multifactorial assessment and intervention provided by a multidisciplinary team including medical and therapy staff reduces the rate of falls by 30%. Assessments and interventions should include: medication review, orthostatic blood pressure management, gait, balance and strengthening exercises, environmental hazards, vision, cardiovascular risk assessment and patient education.
- Targeted balance and strength exercises in selected community populations reduces falls by 30%.

Facts and Figures

Ageing population

The number of people aged 65 and over in Newcastle upon Tyne is predicted to increase (Figure 1).

Figure 1: Prediction of population figures to 2025 in Newcastle upon Tyne

Newcastle upon Tyne					
Population aged 65 and over, in five year age bands, projected to 2025					
	2008	2010	2015	2020	2025
People aged 65-69	10,200	10,200	12,500	12,000	13,200
People aged 70-74	10,100	9,900	9,200	11,400	10,900
People aged 75-79	8,700	8,500	8,600	8,100	10,100
People aged 80-84	6,300	6,500	6,600	7,000	6,700
People aged 85 and over	5,800	5,900	6,700	7,500	8,700
Total population 65 and over	41,100	41,000	43,600	46,000	49,600

Figures may not sum due to rounding
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Living alone

The number of people living alone aged 65 and over is predicted to increase (Figure 2).

Figure 2: Living arrangements of people aged 65 and over by age bands (65-74, and 75 and over) and gender and numbers living alone, projected to 2025

Newcastle upon Tyne

Living arrangements of people aged 65 and over by age bands (65-74, and 75 and over) and gender and numbers living alone, projected to 2025

	2008	2010	2015	2020	2025
Males aged 65-74 predicted to live alone	1,564	1,581	1,785	1,955	1,989
Males aged 75 and over predicted to live alone	2,240	2,296	2,492	2,688	3,192
Females aged 65-74 predicted to live alone	3,597	3,597	3,696	3,894	4,125
Females aged 75 and over predicted to live alone	7,552	7,493	7,670	7,670	8,260
Total population aged 65-74 predicted to live alone	5,161	5,178	5,481	5,849	6,114
Total population aged 75 and over predicted to live alone	9,792	9,789	10,162	10,358	11,452

Figures may not sum due to rounding
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Trends

Falls

- Approximately 30% of individuals aged 65 and over fall each year, with half of those going on to have multiple falls. Based on a population of 41,370 people aged over 65 in [Newcastle upon Tyne](#) (ONS, 2004), this translates to some 12,400 falls per year of whom 50% (6,200) will have further falls.

Hip fractures

- The National Audit Office (NAO) found that NHS Trusts, which had evaluated the cost of patient safety incidents, had estimated that a fractured neck of femur due to a fall in hospital costs £10,000 (Safety First, 2006²). Figure 3 shows the number of emergency admissions for hip fractures across Newcastle upon Tyne and the North East.

² [Safety First – A report for patients, clinicians and healthcare managers](#), DH, 2006

Figure 3 - Number of emergency hospital admissions: fractured proximal femur - per 100,00 persons – Newcastle upon Tyne and North east region					
	2002/03	2003/04	2004/05	2005/06	2006/07
Newcastle upon Tyne MCD	323	313	326	275	317
North East (SHA region)	3,117	2,970	2,894	3,126	2,916
Source: National Centre for Health Outcomes Development (2008)					

Deaths

- Newcastle upon Tyne records the highest number of deaths attributed to falls in people aged between 65-74 compared with neighbouring metropolitan areas, and second highest in people aged 75 and over as outlined in Figure 4. The data also highlights that men are more likely to die from a fall than women.

Figure 4 - Falls related mortality per 100,000 population in Newcastle upon Tyne 2004-06

Falls related mortality per 100,000 pop/n	MALES	MALES	FEMALES	FEMALES	PERSONS	PERSONS
	65-74	75+	65-74	75+	65-74	75+
Gateshead	3.9	28.9	6.8	17.8	5.4	22.0
Newcastle upon Tyne	17.2	35.1	2.9	23.2	9.4	27.6
North Tyneside	4.1	156.7	7.0	243.1	5.6	211.0
South Tyneside	10.0	55.0	4.4	8.1	7.0	25.5
Sunderland	0.0	17.8	4.9	24.0	2.6	21.7
ENGLAND AND WALES	11.4	52.0	5.9	49.2	8.5	50.3
ENGLAND	11.3	51.2	5.8	48.7	8.4	49.7
NORTH EAST	8.9	60.7	6.8	62.0	7.8	61.5

Source: [NCHOD Mortality from falls](#) (2004-06)

Hospital admissions

- North East Ambulance Service (NEAS) attended 1,504 falls in Newcastle upon Tyne over seven months (June-Dec 04), of whom 1,339 were transported to A&E and 165 required community help only. Extrapolated to 12 months, the data suggests 2,578 falls in one year, with 2,295 people attending A&E. The cost per fall to the ambulance service is estimated at £145.83 ([Newton et al, 2006](#))³

³ Newton, J.L., Kyle, P., Liversidge, P. et al (2006) *The costs of falls in the community to the North East Ambulance Service* Emergency Medicine Journal 23; 479-481

- Between April 2006 and March 2007, 1,214 people aged over 65 (2,002 all ages) were admitted to hospital in Newcastle upon Tyne following a fall. Two thirds of these fallers (871) were women (Figure 5).
- The number of people aged 65 and over being admitted to hospital from a fall in Newcastle upon Tyne increased from 1,043 in 2005/06 to 1,214 in 2006/07.

Figure 5: Hospital admissions from falls in Newcastle upon Tyne by gender and age in 2006/07

	Newcastle	North East	England
Males Aged 0-64	21,753	198,088	3,206,572
Males Aged 0-64; Falls (basic accidental falls); External cause	582	5,176	82,248
Males Aged 65 and Over	12,577	118,336	2,000,131
Males Aged 65 and Over; Falls (basic accidental falls); External cause	343	3,527	60,137
Females Aged 0-64	23,706	250,090	4,200,139
Females Aged 0-64; Falls (basic accidental falls); External cause	406	3,849	56,690
Females Aged 65 and Over	14,248	129,537	2,155,252
Females Aged 65 and Over; Falls (basic accidental falls); External cause	871	8,827	150,429

Source: Office for National Statistics

[Scuffham et al](#) (2003) estimated the number of A&E attendances (Figure 6) and admissions to hospital (Figure 7) as a result of unintentional falls among people aged over 60 in four age groups. Applied to the population of Newcastle upon Tyne, the projections are outlined below:

Figure 6: A&E attendances per 10,000 population from 2008-2013							
Age group	Rate per 10,000	2008	2009	2010	2011	2012	2013
60-64	273.5	358	366	372	375	361	356
65-69	287.3	293	290	293	302	325	345
70-74	367.9	372	372	364	353	346	335
75+	945.3	1,966	1,966	1,976	2,004	2,004	2,032

Figure 7: Admissions per 10,000 population from 2008-2013							
Age group	Rate per 10,000	2008	2009	2010	2011	2012	2013
60-64	34.5	45	46	47	47	46	45
65-69	52.0	53	53	53	55	59	62
70-74	91.9	93	93	91	88	86	84
75+	368.6	767	767	770	781	781	792

Based on Newton (op cit) we can estimate that there will be approximately a further 11% (200-230) falls that are attended by the ambulance service but are not transported to A&E.

Note: these are based on the number of attendances and admissions and as such do not tell us how many individual people will fall. In addition it reflects those who seek and able to access the service rather than the actual number of falls.

Targets

Our Healthier Nation (DH, 1998) set a target of a reduction in accidents by 20% by 2010 from 1996 baseline figures, highlighting falls as a particular cause of accidents.

In addition, data collection on the rate of emergency hospital admissions for hip fractures outlined below highlights areas for improvement.

Performance

National indicators

The core dataset published by the Department of Health provides an indicative list of indicators to assist partnerships in preparing their JSNA (DH, 2008)⁴. The core dataset for falls includes:

1. National Centre for Health Outcomes Development (NCHOD) data on the rate of emergency hospital admissions and timely surgery: fractured proximal femur
2. Projecting Older People Population Information System (POPPI) (www.poppi.org.uk) data on the number of older people attending A&E or admitted to hospital as a result of falls

National Audit of Organisation of Services for Falls and Bone Health for Older People⁵

A national audit was undertaken by the Royal College of Physicians in 2006 that was part of a three-year work programme commissioned by the Healthcare Commission:

Year	Programme of work
Year 1 (2008)	Round 2 of the National Audit of the Organisation of Services for Falls and Bone Health in Older People – audit of services, policies and personnel
Year 2 (2009)	Patient involvement questionnaires, service improvements following on from the organisational audit and preparation for Year 3's audits.
Year 3 (2010) -	Repeat of the Clinical Audit (patient notes) and Audit of the Organisation of Services.

⁴ [The JSNA Core Dataset](#) DH, 2008

⁵ [National Audit of Organisation of Services for Falls and Bone Health for Older People](#), Royal College of Physicians, 2006

The objectives of the audits are to:

- assess the national progress in the implementation of integrated falls services as described in Chapter 6 of the NSF for Older People.
- assess the national progress in the implementation of the NICE Guideline and Health Technology Appraisal relating to Falls and Osteoporosis.
- assess the progress since the round 1 National Audit of the Organisation of Services for Falls and Bone Health in Older People (2005).
- enable the benchmarking and comparison of the organisation and provision of falls and bone health services between trusts

Source: Website of Royal College of Physicians - <http://www.rcplondon.ac.uk/clinical-standards/ceeu/Current-work/Falls/Pages/Audit.aspx>

The audit report published in 2006 concludes that:

- 74% of trusts in England are part of a coordinated, integrated, multi-professional, multi-agency service for falls.
- Certain key areas of hospital services e.g. A&E and fracture units have inadequately organized bone health and falls services and only 30% of A&E departments have falls screening and only 26% for risk of falls screening.
- Most areas have adequate infrastructure with the potential to identify needs and risks and to perform adequately to targets.
- The executive summary reports that case finding and secondary prevention arrangements in hospitals are inadequate.
- 80% of public health annual reports fail to report on falls.
- There are mechanisms in place to trigger further assessment of falls patients in 84% of trusts and for patients to be referred to specialist falls services either in hospital (95%) or in intermediate care (99%).
- Although there are good mechanisms in place for identifying falls and referrals to services, the level of use of falls services is low e.g. in an average sized PCT the median number of people attending physician led clinics is 5, but the number of falls occurring annually is around 10,000.

Local Views

“You've got something to look forward to”⁶ is a three-year independent evaluation of Search's work to promote greater health and well-being with a specific focus on isolated older people in West Newcastle. Search held 45 different health-promoting and leisure activities, including various forms of exercise and physical activity, providing a total of 3,048 sessions. The report highlights reducing social isolation and increasing physical activity as key to reducing falls. One comment about attendees stated:

“They are two prime examples. Both live on their own...They're isolated. They're just in the house on their own. They would hardly ever get out. And they're meeting new people. They love it... Plus, if they don't turn up for different days, we always phone and find out what's wrong. That's one good thing... (One) does have heart problems and she's always having falls.”

⁶ “You've got something to look forward to”: An evaluation of Search's work with older people in West Newcastle, Judith Green, 2008

Newcastle PCT and Quality of Life Partnership for Older People funded a pilot **Staying Steady programme** in the Outer West of Newcastle upon Tyne which started in January 2006. Staying Steady is a supported exercise scheme designed to provide a transition between NIFS clinical falls rehabilitation programmes and other exercise-based general activities provided by local leisure services and community groups. Two groups (of 6 and 4 individuals) took part in a 32 week programme (divided into four eight week blocks). The evaluation⁷ suggested that participants improved their score in clinical outcomes measures and reported improved confidence. The evaluation report recommended continuing and extending the scheme.

“The company is excellent...the first morning I knew only one person, the others were complete strangers, and now we are friends”

“Getting among people who are in the same situation helps a lot because you can talk about it”

“I’m not frightened anymore...I think I have a clearer outlook on things”

“My attitude is changing, I’m more confident in myself”

“The exercises have helped my neck pain – the more I do, the better it gets”

National and local strategies

National policy

The **National Service Framework (NSF) for Older People** (2001) set targets for every health system, in partnership with Councils:

- To review the local system of services for falls and to agree and implement local priorities to reduce the incidence of falls, and reduce their impact on health, including:
 - prevention including the prevention and treatment of osteoporosis
 - improving the diagnosis, care and treatment of those who have fallen
 - rehabilitation and long-term support.
- All local health and social care systems to establish integrated falls service developed from the initial local review of services by April 2005

The **National Institute for Health and Clinical Excellence (NICE) Clinical Guideline 21 - Falls (2004)**⁸ presents the following evidence-based priorities for the assessment and prevention of falls in older people:

- Case/risk identification
- Multi-factorial falls risk assessment
- Multi-factorial interventions
- Encouraging the participation of older people in falls prevention programmes including education and information giving
- Professional education

⁷ “STAYING STEADY” An Evaluation Of A Community-Based Group Exercise Programme Within The Newcastle Integrated Falls Service

⁸ National Institute for Health and Clinical Excellence (NICE) (2004) [Falls: The assessment and prevention of falls in older people](#) NICE: London

The report for Help the Aged: **Encouraging Positive Attitudes to Falls Prevention in Later Life** (Yardley & Todd, 2005⁹) suggested urgent changes were required to the approach to falls prevention. Their suggestions included:

- Emphasise the potential to prevent falls by positive action – improving balance – rather than by the much less desirable method of restricting activity.
- Offer advice tailored to the situation and capabilities of the individual and not according to age, risk of falling or fear of falling, which are ineffective.
- Enable older people to choose the advice and falls prevention activities that suit their particular abilities, needs, priorities and lifestyle.
- Foster positive images of positive falls prevention activities such as balance training so they are seen as socially acceptable and relevant by a wide range of people.

A New Ambition for Old Age: Next Steps in Implementing the National Service Framework for Older People (2006)¹⁰ sets out the priorities for the second phase of the government's ten-year NSF for Older People under three themes: Dignity in care, Joined-up care and Healthy ageing. The aims for falls are:

- To extend council, PCT and voluntary sector initiatives to improve exercise, balance, medicines management, environment and footwear for older people to reduce falls risk.
- To improve emergency response to falls with a key role for emergency care practitioners to assess people who have fallen prior to transfer to an emergency department and mobilize intermediate care services where a need for hospital assessment is not required.
- Every economy to have access to a falls assessment service for people with recurrent falls, or one fall with serious consequences.
- To increase capacity in osteoporosis services in DXA scanning for bone density as a guide to treatment. In 2005-06 £3 million has been allocated from a centrally held revenue budget for purchasing of additional scans (mainly from independent sector (IS) providers) in SHAs where there are the most pressing short-falls. Capital provision of £17m has been made in 2006/7 and 2007/8 to improve NHS capacity through investment in new DXA scanning equipment.
- To improve rehabilitation services for people who have lost functional ability or confidence after a fall.

Supporting People¹¹ (SP) is the government's long term policy to enable local authorities to plan, commission and provide housing-related support services that help vulnerable people to live independently and fund housing-related support programmes such as the package of support for repeat fallers in Newcastle upon Tyne. SP has been important in helping to carry out the implementations of the NSF for Older People (2001).

⁹ Yardley, L. and Todd, C. (2005) Encouraging positive attitudes to falls prevention in later life. Help the Aged: London

¹⁰ DH (2006) [A new ambition for old age: Next steps in implementing the National Service Framework for Older People](#). DH: London

¹¹ Supporting People Five year strategy 2005/6-2009/10

Local

The **Older People's Local Implementation Team** is looking at an option to develop a Falls Strategy for Newcastle upon Tyne, possibly led by the key falls clinicians subject to work commitments and appropriateness. However, further discussion is required

There have been ongoing discussions between the provider services from Newcastle PCT, Newcastle Upon Tyne Hospitals NHS Foundation Trust and Practice-based Commissioning Groups and commissioners to develop a joint falls prevention and service development proposal that will attempt to address the gaps identified in this JSNA document. The development of this proposal has been challenging but there is positive commitment from all parties involved to date. The proposal aims to tackle several of the areas including:

- expanding the Staying Steady initiative
- awareness raising and falls hotline approach to referrals (including the potential development of self-referral) and triage
- development of a CommFASS (community falls and syncope service) and extended capacity in existing falls services to meet unmet need.

Current Activity and Services

Newcastle Falls Clinical Network

NFCN comprises five clinical falls services and representatives from the ambulance service, social services and the voluntary sector. The clinical services are:

- Community Resource Teams (3 locality based teams)
- Belsay Day Unit at Newcastle General Hospital
- Melville Day Unit at Freeman Hospital
- Falls and Syncope Service at the Royal Victoria Infirmary
- Osteoporosis Service

The services are provided both by Newcastle PCT and Newcastle upon Tyne Hospitals NHS Foundation Trust and together provide an integrated approach to multifactorial assessment and intervention for fallers and those at risk of falls.

There is an integrated falls pathway following NICE guidelines including:

- Assessment pathways for relevant assessment of fallers.
- Referral pathways so fallers receive correct and full treatment and follow on support / care packages.
- Report / recording methods to keep track of falls and fallers including notifying GPs.

Discussions around modernisation of the Newcastle Falls Clinical Network are ongoing including raising awareness and access to falls services and preventing falls initiatives.

Rehabilitation Services

Rehabilitation Services for older people who have fallen are provided by the Falls Clinical Network (Belsay and Melville Day Units and the Community Resource Teams), the Orthopaedic Discharge Team, the Community Rehabilitation Service (based in Connie Lewcock and Chirton House resource Centres) and the in-patient rehabilitation wards at Newcastle General and Walkergate Hospitals.

Supporting People (SP)

The SP Annual Plan 2007/08¹² highlights work with Your Homes Newcastle to incorporate the potential for telecare capacity into alarm services that ensured their target of 65% compatibility was met; the SP team are now focusing on enhancing the compatibility of other providers' systems in order to move towards 100% compatibility with telecare in older people's services incorporating an emergency alarm. The team has also been involved in the development of Social Services' **Telecare Strategy**. The use of telecare is viewed as a priority to allow vulnerable people to retain their independence as long as possible and reduce to the potential for falls.

Newcastle upon Tyne Package of support for repeat fallers is a joined up programme of support for repeat fallers involving North East Ambulance Service NHS Trust (NEAS), Social Services Directorate Newcastle (SSD), Newcastle Integrated Falls Service (NIFS), Your Homes Newcastle (YHN) and Registration Services Newcastle City Council. Falls data (Category C Calls) are downloaded monthly from NEAS and analyzed to highlight regular fallers, hot spot areas and both Residential and Nursing Homes throughout the City of Newcastle upon Tyne who have called 999 for assistance. This process monitors falls through accurate data analysis and advises vulnerable adults about services and refers them to appropriate support within NIFS.

Search Project is a community based resource centre in West Newcastle that aims to support and empower older people and their carers to improve their quality of life. They offer a range of community health activities, leisure and learning opportunities, advice and help with claiming benefits and accessing services and receives core funding from Newcastle City Council Social Services Directorate and the Newcastle Primary Care Trust.

Information on the 'Staying Steady' pilot can be accessed under the local views section.

'What Is This Telling Us'?

What Are The Key Inequalities?

At-risk groups

There is no suggestion in the material that there are particular at-risk groups such as those living in areas of high deprivation or from ethnic minorities. However, it is clear that people are at more risk of falling as they become older, with an increased risk of injury or death following the fall. The predicted rises in the number of older people in Newcastle upon Tyne and those who live alone is likely to result in an increased

¹² [Newcastle's Supporting People Annual Plan 2007/8](#), Newcastle City Council

number of falls and subsequent morbidity including hip fracture and other co-morbidities that can lead to reduced independence and mobility.

Deaths from falls

The numbers of people aged 65 and over who die following a fall are small. However, the numbers in Newcastle upon Tyne are higher than in neighbouring councils except for people over 75 years old.

Expectations

[Gillespie](#) (2003) suggests that:

- it is only possible to achieve modest reductions, usually less than 35% in the number of people falling and in the number of falls;
- many of the possible interventions are labour intensive and expensive, thus need to be targeted to those most at risk;
- service providers should set conservative and achievable targets.

What Are The Key Gaps In Knowledge / Services?

Data limitations

35-60% of people aged over 65 years are estimated to fall in one year, however, the real number is unlikely to be known precisely. Newton et al (2006) provided a valuable insight into the number of people, who fell but did not attend A&E. In their study of fallers who called an ambulance in Newcastle upon Tyne they found 11% who received support but were not transported to A&E.

Integrated services

The audit carried out by the Royal College of Physicians (RCP) that reviewed services provided to prevent falls reported that only 74% of trusts in England are part of a coordinated, integrated, multi-professional, multi-agency service for falls. The Newcastle Falls Clinical Network, provided both by Newcastle PCT and Newcastle upon Tyne Hospitals NHS Foundation Trust, provides an integrated approach to multi-factorial assessment and intervention for fallers and those at risk of falls.

Uptake of prevention programmes

Low uptake of services was also highlighted as an issue nationally in the RCP audit. According to a Help the Aged report, uptake of falls prevention programmes is low amongst those who are offered the chance to participate. Fewer than 50% decide not to participate and some community-based interventions have take up rates of less than 10 per cent.

What Are The Risks Of Not Delivering Our Targets?

Morbidity and mortality

There is a risk that the number of people who die or are injured from a fall will increase.

Cost

Newton (op cit) cite Scuffham et al (2003) in estimating costs of £2,000-£3,000 to the NHS per person following a fall. This does not include further social care costs or the personal cost of reduced mobility, lack of confidence and poorer quality of life.

There is insufficient information to estimate the actual costs of not delivering prevention and support services in Newcastle upon Tyne but it is likely to be considerable in both financial and personal terms. Taking a national view Scuffham (op cit) provides an estimate:

These falls cost the UK government pound 981 million [in 1999], of which the NHS incurred 59.2%. Most of the costs (66%) were attributable to falls in those aged >=75 years. The major cost driver was inpatient admissions, accounting for 49.4% of total cost of falls. Long term care costs were the second highest, accounting for 41%, primarily in those aged >=75 years.

They conclude that unintentional falls impose a substantial burden on health and social services

Is What We Are Doing Working?

The '**Staying Steady**' pilot appears to have been successful in improving function and confidence

The 'Package of support for repeat fallers' appears comprehensive.

What Is Coming On The Horizon?

National Audit

The Royal College of Physicians will be continuing its three year programme of work and reporting on their findings.

What Should We Be Doing Next?

1. Re-appointing to the falls prevention co-ordinator post with a change in emphasis for this role to prioritise working in the community to link up and contribute to voluntary, health and social care sector falls prevention initiatives.
2. Awareness raising and promotion of falls services and initiatives in a way that engages older people.
3. Establishing a single point of access to falls services including self-referral.
4. Establishing a city-wide network of Staying Steady Exercise Groups based in local leisure and other community facilities.
5. Extend existing and new aspects of service provision to meet demand
6. Develop a range of primary prevention initiatives

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