7 August 2015

Committee Secretary
Standing Committee on Health
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Canberra ACT 2600

By email: health.reps@aph.gov.au

To whom it may concern

Re: Inquiry into Chronic Disease Prevention and Management in Primary Health Care

The National Stroke Foundation (NSF) welcomes the opportunity to provide feedback on Inquiry into Chronic Disease Prevention and Management in Primary Health Care. For any queries on this submission please contact the Director, Policy and Advocacy Rebecca Smith on rsmith@strokefoundation.com.au or 0466 217 988.

This submission presents the National Stroke Foundation’s (NSF) response to the Inquiry into Chronic Disease Prevention and Management in Primary Health Care. The response will focus mainly on prevention and management of vascular disease and in particular stroke. The response will also refer to work undertaken and promoted by the National Vascular Disease Prevention Alliance (NVDPA), of which the NSF is a member.

Chronic diseases accounted for about 85% of the total burden of disease in Australia in 2010, with chronic diseases being the leading cause of illness, disability and death in Australia, accounting for 90% of all deaths in 2011. Chronic diseases now make up over half of all general practice encounters.

In 2012, the Australian Institute of Health and Welfare released its report, Risk factors contributing to chronic disease, in which it examined the prevalence of individual risk factors in the community and the most common combinations of risk factors. The report found that most people have at least one risk factor, while having more risk factors increased the likelihood of having some chronic diseases.

More than 3 million Australians have high blood pressure, 4 million are obese and 3 million are smokers. These statistics are damming, especially when you consider the financial impact of chronic disease. The health system costs of treating cardiovascular disease, type 2 diabetes, cancer and chronic kidney disease are projected to triple to over $40 billion dollars a year within 20 years.

**Vascular disease**

Vascular disease is the name given collectively to a group of diseases that cause damage to the heart and blood vessels. It includes chronic kidney disease, diabetes, heart disease and stroke. As with other chronic diseases, lifestyle related risks include smoking, high alcohol intake, poor diet, and inadequate physical activity. Biomedical risks include overweight and obesity, high blood pressure, raised cholesterols, and raised blood glucose levels. The important thing to note about lifestyle and biomedical risk factors is that they are preventable and amenable to timely treatment. Almost 40% of Australian adults have three or more modifiable risk factors.

The World Health Organisation has estimated that over 80 per cent of all heart disease, stroke and diabetes are preventable, as are 40 per cent of all cancers.\(^2\) This has led to the establishment of global targets (see response to Question 1) to reduce chronic disease. However, to date Australia has not adopted any of these targets despite being a signatory to the global action plan and research bodies such as the Mitchell Institute outlining the importance of doing so.

The best evidence based approaches to prevention now focus on assessing and addressing the effects of cumulative vascular disease risk. The NVDPA is calling for the introduction of a national Integrated Health Check (IHC) within general practice and Aboriginal health services that will support evidence based detection, assessment, prevention and management of chronic kidney disease, type 2 diabetes, heart disease or stroke. IHCs are discussed in Question 1 below.

**Stroke**

Almost one million survivors of stroke will be in living in Australia in 2050, with over 130,000 strokes occurring in that year alone. This represents a 259% increase in stroke survivors living in the Australian community and 224% increase in the annual number of strokes compared with 2014.\(^3\)

The health system is already struggling to cope with the needs of stroke patients. The most recent stroke unit audit in 2013 found that only 6-in-10 patients received best practice hospital care.\(^4\) Seven hundred Australians will unnecessarily die or left disabled as a result. What makes these figures so disappointing is the fact that stroke is preventable.

As one of the vascular diseases, stroke risk factors include smoking, high alcohol intake, high blood pressure and high cholesterol. Physical inactivity and poor diet also contributes to stroke risk and high prevalence of said risk factors points to the significant challenge ahead.

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The most effective way to assess a person’s chance of being at risk of having a stroke (or other related chronic disease) is to conduct an IHC. IHCs ensure a holistic approach to assessment and management of risk factors and provide a solid framework for a GP to work with their patient and minimise the risk of stroke.

There is a significant issue regarding uptake of IHCs in general practice – simply not enough people receive these checks. To support better uptake the NSF has found success through risk awareness raising checks in community settings. The Know your numbers program, delivered in Queensland and New South Wales, is a proven way of increasing the number of high-risk individuals visiting primary care for a comprehensive risk assessment. Once a person with high risk factors has been detected and notified through a community program they can then be motivated to see their GP. This is what is known as a prevention pathway. Attracting people in an informal setting to check their health and then moving them through a pathway to the appropriate health care professionals.

Prevention pathways are effective. IHCs can save lives. This submission will focus on these two topics, amongst others, to provide the Committee with evidence based solutions to preventing chronic disease. The submission will also discuss financial incentives to encourage people to present for IHCs and for GPs to conduct them.

This submission will also provide information on the vital work that the NSF is doing to assist people after they’ve had their stroke through programs such as StrokeConnect Follow Up, the EnableMe website and StrokeLine.
Response to terms of reference

1. Examples of best practice in chronic disease prevention and management, both in Australia and internationally;

Despite advances in treatment, we are still well short of being able to claim delivery of best practice stroke care in Australia. Gaps exist across the system, however, there are solutions that exist to address them.

Evidence shows that not enough Australians understand how to lower their stroke risk and too few receive treatment in the critical time window. A large proportion of stroke patients continue to be denied the vital care of a stroke unit in hospital and sadly far too many are discharged home without a care plan or any sort of follow up support to guide recovery.

World Health Organisation Targets

The World Health Organisation established a global action plan in 2013 that includes voluntary global targets that seek to lower the prevalence of noncommunicable diseases (mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes). The nine global targets include:

1. A 25% relative reduction in risk of premature mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases.
2. At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context.
3. A 10% relative reduction in prevalence of insufficient physical activity.
4. A 30% relative reduction in mean population intake of salt/sodium.
5. A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years.
6. A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances.
7. Halt the rise in diabetes and obesity.
8. At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes.
9. An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major noncommunicable diseases in both public and private facilities.

These nine global targets will have their implementation tracked by the WHO’s global monitoring framework and reported in 2015 against a baseline in 2010.

In its action plan, WHO stated that governments are urged to:

- (i) set national NCD targets for 2025 based on national circumstances;
- (ii) develop multisectoral national NCD plans to reduce exposure to risk factors and enable health systems to respond in order to reach these national targets in 2025; and
- (iii) measure results, taking into account the Global Action Plan.

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To date, there has been no uptake of these targets by any Australian government. However, the Department of Health’s current process to develop a Chronic Disease Framework provides a great opportunity to place the WHO targets in a domestic policy framework with clear targets and actions for Australian governments now and in the future. It is not too late to implement health targets.

**New Zealand – health checks implemented with health targets**

Health targets were originally introduced in New Zealand in 2007 as a way to highlight priority areas in which the government wanted to see measurable progress in the health system. In 2009, in recognition that cardiovascular disease (CVD) and diabetes were the leading cause of morbidity, the New Zealand government included ‘Better Diabetes and Cardiovascular Services’ into their suite of health targets. These targets were based on the number of people that had heart and diabetes checks. These checks involved a doctor or nurse who would:

- ask about a person’s risk factors such as smoking, exercise and diet
- ask if there is any family history of heart attack, stroke or diabetes
- measure blood pressure, height, weight and waist
- test cholesterol and blood glucose levels (for diabetes).

After considering all the risk factors, the doctor or nurse then calculates a person’s risk of having a heart attack or stroke over the next 5 years. This is similar to IHCs in Australia.

The establishment of health targets has been a success, with one of their targets (90% of the eligible population to have their cardiovascular risk assessed in the last five years) to be met by 30 June 2015, as part of its Integrated Performance and Incentive Framework agreement with district health boards. A recent report shows the success in establishing consumer access points and consistent messaging along with initiatives that target specific population groups – in this case, Maori and pacific males over the age of 35.

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Australian best practice – Integrated Health Checks and Prevention Pathways

Integrated health checks
The National Vascular Disease Prevention Alliance (NVDPA), of which the National Stroke Foundation (NSF) is a member, advocates for the adoption of an Integrated Health Check (IHC) to promote the early detection and management of those at high risk of developing chronic kidney disease, type 2 diabetes, heart disease or stroke. An integrated health check, includes the following:

- Establishment of kidney function
- Establishment of diabetes status including use of the AUSDRISK tool and blood tests to determine risk of developing type 2 diabetes or having undiagnosed existing diabetes.
- Calculation of an absolute cardiovascular risk score for cardiovascular disease
- Timely referral to diabetes prevention programs (high risk) or coordinated care service (existing diabetes)
- Timely referral to cardiovascular disease prevention programs

Chronic kidney disease, diabetes and cardiovascular disease together account for approximately one-quarter of the disease burden in Australia. As mentioned above, these conditions share many of the same risk factors. However, these risk factors are also interdependent. For instance, absolute risk for cardiovascular disease looks at an individual’s overall risk profile—not just blood pressure or cholesterol (for example) individually. Risks should not be looked at individually, rather their interrelationships need to be considered to enable the overall absolute risk to be determined.

Risk factors include:

- Smoking status
- Blood pressure
- Serum lipids
- Waist circumference and BMI
- Nutrition
- Physical Activity level
- Alcohol intake
- Age, sex and family history

Any steps to reduce the prevalence of modifiable risk factors in the community therefore should include the use of integrated health checks which should be carried out by GPs and/or Aboriginal health practitioners in a clinical setting where patient confidentiality, assessment and appropriate prescribing and referral can be appropriately managed. This assessment could also be supported through incentive payments and primary care based quality improvement initiatives.

The clinical assessment should be supported by community based health promotion initiatives that contribute to raising awareness of disease and changing people’s health behaviours. Integrated health checks should also be supported by community programs,

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which include health checks and workplace health and wellbeing programs. Primary health networks should also be an integral part of this support network (see response in Question 3).

Addressing shared risk factors will reduce and/or delay hospital admissions due to vascular diseases (diabetes, chronic kidney disease, heart attack and stroke), while improving care will drive efficiencies within Australia’s primary care sector by better identifying and treating those at risk of developing a vascular disease.

As has been cited in the NVDPA submission to this inquiry, in 2009, the Australian Institute of Health and Welfare cited evidence that existing vascular and related disease assessment and management programs had limited uptake and were not well integrated or promoted as part of a national preventative health system.  

Comprehensive vascular health checks have been shown to be highly cost-effective, and improving the performance of these checks has the potential to significantly impact on the costs of vascular disease care. A recent article highlighted that a cardiovascular disease prevention approach based on absolute CVD risk, can be more cost-effective than prevention under current individual risk factor practice. The study showed that 1.2 million Australians currently taking preventative drugs for raised blood pressure and raised blood cholesterol would not require them under an absolute CVD risk approach. In addition it found similar numbers of people are undertreated under the single risk factor approach.  

It is important to note that there are two points that diminish the effectiveness of IHCs – both of which can be addressed:

1. Not enough people currently see their GP to arrange an IHC.
2. Not enough GPs are undertaking IHCs and instead continue to treat risk factors independently rather than in totality.

The first point can be tackled through the use of prevention pathways that raise awareness of risk factors and provide referral where necessary to a GP. The second can be addressed through better support for GPs include consideration of practice incentive approaches.

**Prevention Pathways**
Australian studies have found that there is a need for improving the uptake of absolute risk guidelines and GP understanding of the rationale for using absolute risk and conducting integrated health checks, rather than treating risk factors individually. Another study in the UK found that a one-stop cardiovascular risk assessment service by community pharmacies was feasible in the setting of a large city in the UK and identified around two-thirds of those screened—for whom intervention for cardiovascular risk or an additional risk factor was

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indicated. The majority of clients were men for whom attendance at general practice was known to be low and some success was had in targeting people from more deprived areas and with a minority ethnic background.\textsuperscript{11}

This model – whereby opportunistic health checks are delivered within community precincts - is important for areas of socioeconomic disadvantage, as it provides the most cost-efficient way of increasing health literacy and preventing chronic disease from developing. Research shows that poor health outcomes are higher in low socioeconomic areas and providing a targeted health check program in these communities will ensure individuals at an increased risk are guided to understand what they can do in order to manage their level of risk. Making lifestyle changes at the earliest stage is far cheaper than the cost of hospitalisation if people’s risk factors are not addressed.

\section*{2. Opportunities for the Medicare payment system to reward and encourage best practice and quality improvement in chronic disease prevention and management;}

The NVDPA submission to this inquiry provides a good synopsis of how to use Practice Incentive Payments (PIPs) to encourage the uptake of IHCs in primary care and the NSF strongly endorses this stance.

The NSF supports a Medicare payment system that encourages people to address their risks of chronic disease at the earliest opportunity and thereby prevent complications later on in their lives. This in turn will reduce the number of people that require more expensive medical treatment and thereby reduce pressure on the health system – in particular hospitals.

One possible opportunity is that an MBS item be allocated towards IHCs conducted within a general practice environment.

Despite clinical guidelines on absolute risk assessment, Many GPs test individual risk factors and address these on an individual basis – such as blood pressure lowering medication for high blood pressure. To ensure risk is accurately assessed all risk relevant factors need to be assessed in primary care so that a GP can develop, if necessary, a chronic disease management plan with the patient and work together towards eliminating all risk factors.

However, to ensure that GPs move away from assessing individual risk factors and change clinical practice to include IHCs, incentives need to be given to ensure its adoption. Financial incentives, such as quality practice PIPs, will encourage the uptake of IHCs. The success of this uptake can later be followed up with audits to ensure that IHCs showing patients at high risk have been followed by chronic disease management plans and regular monitoring to ensure they bring their risk level down. This type of incentive would build on existing chronic disease and quality care initiatives in general practice such as the Australian Primary Care Collaboratives (APCC).

As has been stated in the NVDPA submission, the incentive payments to GPs for IHCs will be easily offset by savings to hospitalisation and pharmaceutical costs. In 2004-5 hospital services for people with vascular and related disease cost over $4 billion while pharmaceuticals cost over $2 billion. There is clearly a case to invest in preventative care through IHCs and bring these costs down.

3. Opportunities for the Primary Health Networks to coordinate and support chronic disease prevention and management in primary health care;

The NSF sees an important role for Primary Health Networks (PHNs) to support local delivery of efficient and effective primary care services. This includes the potential to play a leadership role around development and implementation of evidence-based prevention pathways and to be a central point for communication with interested stakeholders including NGOs.

We understand that the key objectives of a PHN are:

- increasing the efficiency and effectiveness of medical services for patients, particularly those at risk of poor health outcomes; and
- improving coordination of care to ensure patients receive the right care in the right place at the right time.

We also understand that each PHN is in the process of undertaking local needs assessment so as to understand priority activity for their region.

As part of this process we would encourage PHNs to take account of the burden of chronic disease in their local community and to acknowledge the value of a partnership approach. As purchasers/commissioners of services, PHNs are best-placed to work at the local level to determine the best way to ensure access to, and use of, prevention pathways to assess and manage health risks at the earliest opportunity.

Ensuring better access to IHCs through a new PIP will deliver better health outcomes and the NVDPA is recommending that the proposed quality PIP be linked to PHNs (see Term of reference 6 for more detail). It is envisaged the Networks could be charged with promoting uptake of the IHC through education, systems support, creating linkages with relevant prevention services in the PHN, measurement, and reporting and evaluation via quality improvement audits.

This PIP would encourage GPs to provide evidence-based lifestyle and medical interventions to manage modifiable risk factors, and/or refer them to appropriate evidenced based services – which can be commissioned by PHNs if not already available. Appropriate lifestyle management advice would be provided and referrals would be made in all instances where people were identified as being at moderate or high risk of disease.

Principal evidence-based lifestyle interventions could include: smoking cessation services; weight management, including bariatric surgery for the severely obese; exercise and behaviour change programs. GPs would refer people at risk to those interventions which
could be delivered through a range of community settings. Regular monitoring of progress against set goals would be required. There is obviously a strong role for the Primary Health Networks to play in this regard.

Primary Networks (PHNs) have the potential to complement state and territory action by involving a wide range of regional groups to support and promote prevention. Some of these groups may fall outside of the health sector such as sports and recreational clubs, school groups, local businesses, local councils, church groups, etc. The NSF has already shown how much these groups can contribute to awareness raising around risk factors through Australia’s Biggest Blood Pressure Check and our community based health check program.

At present, the NSF has an agreement with Returned Services Leagues clubs to participate in risk awareness health checks across NSW. These types of agreements and partnerships will increase the number of people understanding their risk and seeing a GP if needed. Local councils are well positioned to understand the local environment and play an important role in designing plans and policies that affect the local community. Indeed, in Victoria, local councils are required to develop municipal public health and wellbeing plans. These plans look at how a person’s wellbeing and health can be maximised in the local area, as well as minimising public health dangers. As purchasers of services, PHNs need to work closely with these councils to ensure that all needs within the community are met.

Looking beyond primary prevention the NSF believes there is also a role for PHNs when it comes to supporting those impacted by acute chronic disease episodes after they are discharged home from hospital.

Survivors of stroke often leave hospital with a range of complex needs relating to their recovery. While there is a process of discharge planning and post-hospital support, delivery of such can be variable and very often needs change over the first few months.

The NSF delivers a program of coordinated telephone follow-up which is designed to assess survivor and carer need at around 6-8 weeks post-discharge and to provide relevant information and service navigation support to aid recovery.

Many of the referral services such as rehabilitation, secondary prevention and self-management programs are within the PHN purview and we would encourage PHNs to continue delivering and expanding on these important services.

We also believe there is scope for PHNs to support the follow-up service directly through funding and through partnership in program delivery.

Follow up of patients to support recovery has been shown to improve outcomes, speed up recovery and is helpful in reducing risk not only of stroke but of other related chronic

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conditions. For example it is worth noting that up to a third of stroke survivors go on to suffer depression and a far greater number have other emotional and psychological effects.

5. The role of State and Territory Governments in chronic disease prevention and management;

Public hospitals are the single largest component of the health care system. The cost of public hospital care for the Commonwealth and States exceeds $40 billion a year and is growing well above the inflation rate. State and territory governments are responsible for the majority of hospital spending and need to look at prevention programs to ease the pressure on the hospital system.

A prevention example in Victoria is the Life! Program which the NSF has had a role in supporting.

The National Stroke Foundation and Heart Foundation Victoria jointly undertook a demonstration project, with funding from the Victorian Department of Health and Human Services, to engage and work with key stakeholders in south-eastern metropolitan Melbourne. The project aimed to influence the uptake of absolute CVD risk assessment and management with respective agencies and networks.

The Life! Program is a free Victorian lifestyle modification program that helps people reduce their risk of type 2 diabetes and cardiovascular disease and provides free prevention sessions for community groups and organisations on how to prevent type 2 diabetes and improve health and wellbeing. The program is funded by the Victorian Government and managed by Diabetes Australia – Victoria.

The project sought to benefit people identified as being at increased risk for CVD (including those with existing diabetes) and refer them to appropriate pathways services available in the area. The Life! program was chosen as a preferred provider of lifestyle and behavioural change interventions for people who screened as moderate and high risk of CVD without diabetes.

Results from the project have been positive and have shown an increased rate of referrals to the Life! Program of people identified as high risk. There is plenty of scope for states and territories to run similar programs with the core aim of identifying people at risk and supporting them through a prevention pathway to manage and reduce their risk.

Another Victorian initiative was the Healthy Together Victoria program. This program took a unique ‘complex systems approach’ to reducing population level chronic disease risk by accessing people at schools, childhood services and businesses. The approach aimed for

large-scale reach across the Victorian population, initiating action on the systems that influence the health and wellbeing of individuals, families and communities.  

The NSF’s EnableMe program is an example of chronic disease management that we believe would warrant state government support. EnableMe (www.enableme.org.au) is an innovative online tool that contains information for stroke survivors and carers, as well as preventative information. While only recently launched it is being well-received by stroke survivors, carers and their families because of the broad range of information and support that it provides. The availability of forums for discussion between users has been particularly popular States and Territories could take advantage of this tool and use it as one of the resources for stroke survivors.

State and Territory governments also have the power to make legislative changes that can address some high risk factors. Examples include laws around tobacco use and alcohol sales. States and territories can also work with their respective education departments to provide more information regarding chronic diseases to children and young adults at schools and universities and tackle chronic disease at the earliest opportunity.

6. Innovative models which incentivise access, quality and efficiency in chronic disease prevention and management.

As part of the NVDPA, the NSF has contributed to a joint submission specifically on this term of reference and would have it read in conjunction with the additional points made below

The NSF supports the prevention pathways model to incentivise access to chronic disease prevention and management. The prevention pathway model is scalable, starting out in targeted areas of a PHN (such as areas of low socioeconomic advantage) and designed to grow over a period of time. The key aim is to increase access to high quality integrated health checks performed by a GP.

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14 Healthy Together Victoria https://www2.health.vic.gov.au/getfile/?sc_itemid=%7b580306AE-6A00-409C-9E89-A32E48098B69%7d&title=What%20is%20Healthy%20Together%20Victoria
The pathway consists of:

This model will achieve three key aims. Firstly, it will increase community knowledge about risk factors for chronic disease that can be managed to prevent onset of disease and guide those who may be at risk towards a more comprehensive diagnosis. Secondly, it will increase the number of general practices supported to provide efficient and effective integrated health checks. Lastly, it will lay the groundwork for better management of risk factors, via medication and/or referral of patients to programs that assist with lifestyle modification, ultimately preventing the onset of disease.

The importance of each of these three pathway steps cannot be underestimated. By providing greater awareness of chronic disease risk, more people will visit their GP to discuss their health risk further. The growth in people requesting integrated health checks will be matched by the rise in GPs who provide integrated health checks and therefore able to detect those with chronic disease, or those at risk of chronic disease, at the earliest opportunity. By managing chronic disease risk, some hospital admissions can be avoided and alleviate the current burden on acute care.

This model will also enable us to target areas of socioeconomic disadvantage and improve the health status in these areas, along with establishing a primary care approach that will enable more people to have their risk factors assessed, recorded and maintained. It’s reasonable to say, that by taking this initiative, the Government will be supporting a system that ensures all Australians over the age of 45 are receiving an integrated health check every two years and that the necessary interventions are being made to minimise a chronic event or development of a chronic disease.
As part of the NVDPA, the NSF also supports the introduction of a new quality focussed Practice Incentive Payment (PIP) which includes detection and prevention of vascular and related diseases. The NVDPA submission discusses this issue in more detail. The submission’s recommendations suggest that the PIP require general practices to:

- Check eligible patients for vascular and related conditions through an ‘integrated health check’ which includes an absolute cardiovascular risk assessment, diabetes check and kidney disease check;
- Manage the overall risk profile of patients, stratify risk (high, moderate, low) and address their combined risk factors through advice about healthy eating, healthy physical activity and healthy weight, medical management and/or facilitating and coordinating access to evidence-based prevention programs;
- Maintain a patient register, with recall and reminder system for patients eligible for assessment and those who require management of risk;
- Record and report proportion of eligible patients who are checked, who have their risk managed according to the relevant practice guidelines, who have a GP management plan, and who access evidence-based prevention programs.

This PIP could be linked to Primary Health Networks, with the Networks charged with promoting uptake of the integrated health check through education, systems support, creating linkages with relevant prevention services in the Network, measurement, and reporting and evaluation via quality improvement audits.

The new PIP could adopt some of the existing functions from current PIPs, noting that they share commonalities in operation and that this would also streamline both administration and operation of current PIP arrangements.

If states and territories are serious about setting goals to decrease the prevalence of chronic disease they need to consider establishing health targets – as has been successful in New Zealand (see Question 1 for more detail).

Establishing health targets would be an effective way for state and territory governments to demonstrate their progress towards becoming healthier. It will enable a state wide, coordinated approach and set clear goals for improving access to preventative measures for all people, most especially those at an increased risk.

**Innovative programs run by NSF**

The NSF runs community health check programs, including Know your numbers, which have been conducted in pharmacies and other community settings since 2007.

NSF’s community health checks raise awareness about chronic disease risk factors, identify those potentially at high risk and refer those to a GP for an IHC. Health checks use the AUSDRISK tool, blood pressure measures and a cardiovascular disease (CVD) risk factor
checklist to provide individuals with a better understanding of their risk factors for cardiovascular disease and type 2 diabetes.

Those at increased risk are referred to their doctor for a comprehensive assessment. Evidence from more than 500,000 checks included in our program evaluation demonstrates that 46% are at high risk of diabetes. Of those at increased risk, 27% are referred to a GP for assessment, with nearly all (88%) going for assessment. Of those attending a GP, most receive some form of management to reduce risk. An independent evaluation report on this program is available from the NSF.

7. Best practice of Multidisciplinary teams chronic disease management in primary health care and Hospitals;
Evidence shows that hospital treatment in a designated stroke unit by a multi-disciplinary team of stroke experts has the greatest impact on outcomes for stroke patients. Stroke unit care reduces death and disability by approximately 20%.\textsuperscript{15} Stroke unit access remains the greatest priority recommendation in the \textit{Clinical Guidelines for Stroke Management 2010}.

The central aspect of stroke unit care is the provision of a coordinated program by a specialised, multidisciplinary team of health professionals. This team involves the integrated use of medical, nursing and allied health skills, and is supported through the patient journey with social, educational and vocational services, to provide individual assessment, treatment, regular review, discharge planning and follow up.

The clinical guidelines for stroke management provides a detailed outline of what a multidisciplinary team looks like, the roles and responsibilities of each position within the team and how they work within the specialised environment of a stroke unit.

A framework to guide the establishment of appropriate stroke services to support delivery of best practice care as outlined by clinical guidelines was first developed by the NSF, with support from the Federal Government, in 2002. This has been reviewed several times since and now provides a quality framework for acute stroke services across Australia. The framework addresses workforce issues, safety and quality, definitions for stroke units and the care they give, as well as maintaining stroke data sets.

Too few patients receive best-practice stroke care in Australian hospitals. There has been welcome investment by state governments in new stroke units, however key indicators in the most recent National Stroke Audit demonstrate care is not improving and in some cases is declining in standard.

Stroke units offer the best chance for stroke survival, yet more than 40% of stroke patients in 2013 were denied a stroke unit bed. In some hospitals this is due to a shortage of bed numbers within the stroke unit but in others the issue is about bed management with non-stroke patients occupying stroke unit beds leaving stroke patients to be treated in a general hospital environment.

ward. The same audit showed that only 7% of eligible stroke patients received life-saving clot busting therapy and alarmingly only 50% of stroke patients were provided with a discharge care plan to support their recovery when they left hospital.\textsuperscript{16} There has been no improvement in any of these vital indicators since 2011 – the discharge planning statistic is actually worse than it was in 2009.

This data demonstrates that more investment and focus is required to support better adherence to quality care standards. The introduction of a new national care standard for stroke has been welcomed by the stroke community however we are of a strong belief that additional support is required to monitor and improve performance against this standard.

8. Models of chronic disease prevention and management in primary health care which improve outcomes for high end frequent users of medical and health services.

In addition to initial IHCs provided by GPs, there is a need for a dedicated general practice program to ensure comprehensive care is provided to patients, focusing on improved identification and management of patients with CVD and rolling ‘cycles’ of care which has previously been suggested by the NSF and National Heart Foundation.

Compared with conditions such as diabetes and asthma, which have prescribed annual cycles of care that GPs follow, care for those with CVD in general practice has not been provided with specific practice incentive payments.

A GP CVD program would build on existing chronic disease and quality care initiatives in general practice including the Australian Primary Care Collaboratives (APCC) and the Practice Incentives Program. Importantly, this proposed program could include an additional financial incentive or ‘outcomes payment’ to encourage and reward the delivery of quality care.

This proposed program could be implemented through divisions of general practice/primary health care organisations, which would provide support to practices to establish the following key elements to enhance the identification and management of CVD in general practice:

\begin{itemize}
\item disease registers for the recall of CVD patients for review
\item regular assessment of patient lifestyle, biomedical and psycho-social CVD risk factors
\item care plans for patients incorporating lifestyle and pharmacological interventions, referrals and support
\item practice nurse support for secondary prevention
\item financial incentives to encourage improved quality of care.
\end{itemize}

Other models of prevention that require consideration include the use of social media and smart technologies to manage risk factors and encourage healthy behaviours. In addition to these 'self-tracking' technologies there is great interest in the use of telehealth and ehealth options.¹⁷

The NSF has developed its enableme website which is dedicated to stroke recovery and support. The website contains tips, tricks and tools that have been shared by other stroke survivors and is proving to be popular. The NSF also has a more formal avenue for stroke survivors to obtain help and support through our StrokeLine call centre and we are actively seeking government support to rollout a proactive coordinated follow up telephone service that reaches all stroke survivors when they get home from hospital.

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