NHS Greater Glasgow and Clyde
Preventative Agenda Inquiry

1. Which areas of preventative spending/ the preventative agenda would it be most useful for the Health and Sport Committee to investigate?

The Health and Sport Committee should be clear about its definition of prevention and preventative spend as part of the investigatory framework and provide further clarity on the use and understanding of the terms nationally. The investigation should consider the ability to reduce inequalities and tackle social determinants as a primary consideration for preventative activity.

Prevention should include; systems prevention (access / environment); population prevention (skills/ values/social norms); targeted prevention (vulnerability) and early stage prevention approaches (early intervention).

Prevention is actions which prevent avoidable premature mortality or improve healthy life expectancy and reduce inequalities in both.

There are three levels of preventative action:

1. Primary Prevention – action before any health harm has arisen
2. Secondary Prevention – early intervention to catch and reverse or mitigate health harm at an early stage.
3. Tertiary Prevention – once health harm established to prevent further deterioration.

There are also three axes of preventative action – Upstream/Downstream, regulatory/requiring individual opt-in, universal/proportionate/targeted.

The upstream/downstream axes refers to the continuum between fundamental causes through intermediate to immediate causes of ill health/loss of wellbeing represented through the adapted Health Scotland Model below:
There is evidence\(^1\,^2\) that action which is more upstream, regulatory and proportionate is the most effective and cost-effective at achieving the above aims. There is also strong evidence for early intervention particularly as it relates to the life-course.

Lifestyle drift refers to the phenomenon of policy starting with an acknowledgement that inequalities in resource and power are the fundamental causes of much ill health and inequalities in health outcomes but then drifting to action on the more immediate behavioural and lifestyle causes. Whilst for the former, action is required at macro-economic levels and lies out with devolved powers; there is much that can still be done at Scottish Government level and even at local government level and within public sector agencies. With respect to the latter, the table below suggests relevant action.


\(^2\) Macintyre S. Inequalities in health in Scotland: what are they and what can we do about them?. MRC/CSO Social and Public Health Sciences Unit Occasional Paper no. 17, Glasgow, 2007
Possible Upstream Local Action to Improve Health and Reduce Inequalities in Health Outcomes

<table>
<thead>
<tr>
<th>Partner role</th>
<th>Employer role</th>
<th>Service Provider role</th>
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<td>Inform, advocate, monitor</td>
<td>Participative Management and co-determination including good industrial democracy.</td>
<td>Proportionate universalism</td>
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<td>Increase availability of good jobs</td>
<td>Equitable recruitment and training policy – e.g. targeting employment opportunities at those further from labour market</td>
<td>Health and inequalities impact assessments</td>
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<td>Health promoting community planning</td>
<td>People orientated terms and conditions</td>
<td>Reducing price and access barriers</td>
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<td>Contributing to achievement of place standard³</td>
<td>Inequalities sensitive training</td>
<td>Prioritisation and integration of welfare rights/income maximisation</td>
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<td>Living wage accreditation and advocacy</td>
<td>Making health choices easy choices at work</td>
<td>Participatory budgeting</td>
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<td>Community Benefit clauses in procurement.</td>
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In keeping with the above it would be useful to look at the balance in spend between primary, secondary and tertiary prevention and within these levels the subsequent balance between upstream and downstream action even just for explicit ring-fenced public health budgets.

With the exception of the primary immunisation schedule in pre-school children, no area should be exempt from scrutiny or regarded as sacred and beyond review. However NHS Greater Glasgow and Clyde wishes to draw several themes to the attention of the Committee which we consider warrant investigation in order to develop further the preventative agenda.

Early years
The importance of early years experiences is now well accepted in Scotland as seen in many policies to improve life chances for children. There is growing evidence
about the importance of recognising Adverse Experiences in Childhood (ACES) and understanding their impact on future health. The work on this issue being taken forward by Public Health Wales is to be commended. 

Health Scotland has established an ACES expert group which will operate as a Scottish ACES Hub to raise awareness of and learning about ACES and to promote opportunities for prevention and mitigation.

It is well evidenced that the health of the mother before or early in pregnancy impacts on the health of the child long after infancy. More than 250,000 babies will be born in Scotland during the next five years. Each baby is small, but together they will play a major role in Scotland’s future. How their future will turn out is not entirely preordained; not just a matter of luck; and, definitely not ‘somebody else’s’ responsibility. Each of those 250,000 babies will have a mother and a father. That adds another 500,000 to the number of people most intimately involved in these births over the next five years. They, too, will play a prominent role in shaping the future. Neither the wellbeing of these prospective mothers and fathers, nor the futures of their babies are spectator sports. The choices we make and the actions we take (or fail to take) – individually and collectively -- will have as much impact on these new Scots (and their parents) as either their postcodes or their genetic codes.

Most of these 250,000 babies have not even been conceived yet. That gives Scotland both an opportunity and an obligation to begin at the true beginning of the birth of a new generation – that is, before pregnancy. The importance of early childhood has become increasingly acknowledged in recent years. But, as a society, we still do not act as if we understand just how early ‘the early years’ are really being shaped.

Preconception care would aim to improve health for all women of childbearing age and to target support for women at highest risk of poorer medical or social outcomes.

Preconception health, education and care are not adequately delivered in Scotland. Preconception health, education and care is a powerful, multifaceted strategy across the life course for:
- reducing inequalities;
- promoting social justice across generations;
- preventing harm from happening in the first place (e.g. fetal alcohol harm and some ACES);
- easing the demands upon health professionals and the NHS; and,
- grasping the opportunity to listen to, and then support, girls and women, boys and men in ways that lead to healthier families and a better society.

Alcohol exposure in utero is a risk that can, and too often does, diminish the lifelong health and wellbeing of those affected. Smoking in pregnancy, as well as obesity, are other key risk factors. Fetal Alcohol Syndrome Disorder is neither a minor nor a rare condition in Scotland or across the UK. Based upon the most conservative international epidemiological studies, more than 500 Scottish babies
each and every year are born with fetal alcohol harm. Thus, FASD adversely affects roughly 10,000 young Scots right now.

Inadequate, or altogether absent, preparation for parenthood (whether with the first, or a subsequent, baby) is both a cause and a consequence of intergenerational poverty and perpetuates a crucial obstacle to good child health and wellbeing. Acting on the recommendations in the e-publications below offers a powerful new opportunity to break this cycle of ill health, inequality and injustice. 
http://www.nhsggc.org.uk/media/237841/prepared-for-pregnancy-j-sher-may-2016.pdf

Preconception health, education and care is a vast and vital -- but still largely ‘under the radar’ -- preventative strategy for seeing and seeking healthier, happier lives for the next generation of parents and children. Taking the preconception period seriously means properly preparing and fully supporting potential mothers and fathers across the life course to prepare for this key part of their own futures in respectful, empowering and helpful ways. Even for those who never become parents, better health and better lives are just as beneficial.

The best predictor of pregnancy outcomes -- good and bad -- is the health (physical and mental) and life circumstances of prospective mothers at conception. The ones who are well informed, well supported, healthy and thriving at the very start of their pregnancy usually (but not always) give birth to healthy, thriving babies. By contrast, the babies born to unhealthy, stressed, poorly informed and deprived women generally (but not always) have life chances that are compromised even before they draw their first breath. Just as what happens during pregnancy profoundly influences children’s lives from infancy onwards, so too, what is true prior to conception greatly influences each and every pregnancy.

A Scottish preconception health implementation group should be created with the remit to improve the quality, quantity and integration of preconception health, education and care activities in three areas: knowledge development and evidence sharing; modifying frontline service delivery; and, amending existing health frameworks, policies, guidance and funding.

Parenting support and engaging parents in evidence-based programmes also have untapped potential to improve children’s health, well-being and life chances and should be promoted and delivered throughout Scotland. The POPP (Psychology of Parenting Project) led by NHS Education Scotland supports the delivery of two of the most evidence-based parenting programmes (Incredible Years and Triple P) and the committee should review the effectiveness of this programme with a view to sustaining it and encouraging the use of these programmes throughout Scotland.

Youth health
Coordinated responses to youth health challenges, including a strong focus on youth mental health and wellbeing, would be a key area for the committee, arguably the second most important area of public health policy (after early years) in terms of potential impact, but one of the least coordinated in terms of joined up governmental and local policy. One in 10 children and young people experience mental health
problems with has a substantial implications for personal, social, health, educational and economic outcomes. Specifically there should be a particular focus on the teenage to early adult years (partly due to the strong evidence of the drop of support for key health issues as young people “age out” of children’s services. Systematic connection of young people with a range of health; social; educational; vocational opportunities within local communities can improve employability skills and raise attainment.

Of the thousands of pieces of evidence to back up this recommendation, two will be cited:: the global work of the Lancet Adolescent Health Commission http://adolescentsourfuture.com/ and the most recent iteration of the annual Macquarie Index from the Princes Trust, showing a huge level of unmet need amongst young people and young adults, leading of course to a huge burden of adult morbidity at best and youth suicide at worst: https://www.princes-trust.org.uk/about-the-trust/research-policies-reports/youth-index-2017. Both of these areas of work demonstrate we need to adopt a social model of health, grounded in the reality of young people’s lives, not a quasi-medical risk factor reduction approach.

Resilient Communities
As far as preventive action is concerned, building resilient communities will protect against some of the common every day stresses and more significant problems that the community and individuals face. There are examples of where this has been done and where groups have identified assets in their community that gives them wellbeing in terms of physical and mental health. This approach is particularly useful in areas of socioeconomic or physical or mental disadvantage. If this is done with services, third party and voluntary sector providers and on an intergenerational basis it will produce the biggest return. Intergenerational work is valuable in ensuring that older people remain integrated in the community and pass their skills on to the younger generation. It also provides younger people with access to the skills and experience of older people. It would reduce social isolation and loneliness which contribute to morbidity, mortality and more use of expensive services.

Ideally this type of work should take place in all communities across Scotland, however as resources are limited and all community work will require input to support this work it may be necessary to identify areas of special concern. Identification of communities at risk could be undertaken through use of commonly available data such as SIMD 16, but it may be usefully supplemented by health board or council or other services data.

Development of communal and green areas not only encourages social participation, but can increase physical activity, reduce stress, build self-esteem and contribute to a decrease in obesity and substance misuse.

Further support for deprived and vulnerable people to access the internet and develop IT skills can promote access to information and services that these groups most need but have least access to. It can also permit lonely people to maintain contact with family who may not be nearby or provide opportunities to develop employability skills.
In the longer term the design of housing and towns should be planned to promote health as well as access by people with disabilities, older people and pedestrians. The focus should be on public transport or active transport rather than the car.

Alcohol
In the alcohol field further work needs to be taken forward to protect children and young people from exposure to alcohol and to discourage alcohol consumption at family orientated events. There needs to be dissociation between sports and alcohol, cinema/theatre and alcohol. There needs to be more proactive work to prevent every second shop in the high street selling alcohol whether on sales or off sales. It is very difficult for recovering alcoholics and families who wish to discourage children from drinking to go to an alcohol free environment due to the growth of the on sales and off sales trade. This may require the government to take the imitative and introduce specialised off sales alcohol premises, removing the alcohol from supermarkets, grocers and convenience stores. We also need stronger regulation of the on line sales and delivery of alcohol to prevent bulk delivery of cheap alcohol to heavy drinkers and young people.

A review of alcohol deaths has indicated that about a third of those who died first developed problematic alcohol use in their teens. Early intervention with children and families to delay the time when alcohol is first consumed would reduce the risk of these children growing up to become problematic drinkers and allow them to complete their education and develop skills for work.

Cancer
The role of multidisciplinary teams in developing person centred care based on holistic needs assessment and care planning is growing and innovative practice such as Improving Cancer Journey Partnership Programme in Glasgow (McMillan) or Extensive Care model in Blackpool and Flyde. [http://www.bbc.co.uk/news/health-38911008](http://www.bbc.co.uk/news/health-38911008) provides opportunities for preventative intervention with vulnerable patient groups identified in secondary care with a view to tailored early intervention and community support or social prescribing. Gathering robust evidence to support such approaches is key for transfer to mainstream practice.

Review of effectiveness
There are some areas that require review to investigate whether disinvestment is required. There remains debate about breast cancer screening. Although it recently survived a UK wide review lead by Sir Michael Marmot, it may not survive future reviews as the case-fatality of breast cancer continues to improve with improving treatment and the risk benefit ratio of screen detection continues to fall as a result. Recent reviews of old and new evidence suggest that we pay a high price, in terms of false positives and unnecessary mastectomy, for the small number of lives saved.

Also requiring scrutiny is the policy of encouraging the public to seek medical attention for a variety of signs, symptoms and other reasons, to request ad hoc screening in the absence of an evidence base for efficacy or cost-effectiveness. Non evidence based ‘campaigns’ that drive people to their GP or hospital consultant
asking for tests that are unlikely to help them personally in terms of extending their life span drive up unnecessary investigation and costs.

One example is the “Be Clear on Cancer” campaign promoted via NHS Choices and on wall posters delivered to GP practices where the headline advice is “If you’ve been coughing for 3 weeks or more, tell your doctor.” This campaign, which was aimed at improving lung cancer survival rates in the UK, can be seen at [https://www.nhs.uk/be-clear-on-cancer/symptoms/lung-cancer#efjUfOLRqDdH4BemL.97](https://www.nhs.uk/be-clear-on-cancer/symptoms/lung-cancer#efjUfOLRqDdH4BemL.97). Increases in CXR and chest CT with extremely low yield in terms of identifying new disease has to be considered when evaluating such campaigns. Furthermore, the increased workload it poses for GPs has to be assessed.

Another example of an initiative worthy of scrutiny is encouraging men with a family history of prostatic cancer to visit their GP to request a PSA level when there is no evidence that this is in the patient’s interest or a cost effective health investigation. Denying patients this test provides a real conundrum for the diminishing numbers of GPs who are facing a rising consultation rate over the same time period.

Screening for depression and dementia are other poorly studied interventions that have yet to be shown to be cost-effective. Even Alcohol Brief Interventions (ABIs), which are widely regarded as evidence-based have recently been subject to scrutiny in the BMJ which, suggests that the benefits may be small. An even more recent publication in the BMJ suggests that we need to rethink ABI in general practice because the existing evidence, the limitations of which have received too little attention, should be interpreted as demonstrating efficacy, and not cost effectiveness. In addition, they state that “the pace of development of alcohol interventions has been disappointing, perhaps because it is not sufficiently led or championed by generalist clinicians” suggesting that we should tackle the underlying inability of GPs to work synergistically with such add-on initiatives.

This raises the concern that a wide range of cause-specific services groups have been spawned in recent years, at great overall combined cost, to tackle, individually, what are a range of symptoms resulting from a common cause, specifically inequality in opportunity and access to wealth and income. Wilkinson and Pickett remind us again, as recently as February 2017, that the prevalence rates of most public health problems correlate with the degree of income and wealth divide in developed countries. Instead of addressing the root cause of our problems, which is inequality

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4 The study by Platt et al can be found at: [http://bmjopen.bmj.com/content/bmjopen/6/8/e011473.full.pdf](http://bmjopen.bmj.com/content/bmjopen/6/8/e011473.full.pdf)

5 The analysis by McCambridge and Saitz can be found at: [http://www.bmj.com/content/bmj/356/bmj.j116.full.pdf](http://www.bmj.com/content/bmj/356/bmj.j116.full.pdf)

Intervention studies can be placed on a continuum, with a progression from efficacy trials to effectiveness trials. Efficacy can be defined as the performance of an intervention under ideal and controlled circumstances, whereas effectiveness refers to its performance under ‘real-world’ conditions. If an activity is cost-effective, which is a much higher level of requirement, it is good value for the amount of money paid.

6 An editorial by Kate Pickett and Richard Wilkinson can be found on page 223 of the 11 February issue of the British Medical Journal: [http://www.bmj.com/bmj/section-pdf/938609?path=/bmj/356/8092/This_Week.full.pdf](http://www.bmj.com/bmj/section-pdf/938609?path=/bmj/356/8092/This_Week.full.pdf)
in opportunity and wealth/income, we have created multiple silos of public health initiatives that attempt to tackle individual aspects of unhealthy lifestyles.

2. How can health boards and integrative authorities overcome the (financial and political) pressures that lead to reactive spending/ a focus on fulfilling only statutory duties and targets, to initiate and maintain preventative spend?

Leadership and vision are required to build a compelling case to act on early years and youth health, at both national and local level. This will require drawing together and synthesising for policy makers, decision makers and the wider public and professional audiences the compelling evidence to act in a range of key areas. Public health economics is providing some vital material to support such preventative approaches and investments, and this can be supplemented by evidence-informed, logic model approaches.

We also need to be collectively much better at learning from and engaging with the real-life experiences of families and young people as they attempt to navigate through life transitions, adopting an inclusive approach to the diverse needs, particularly of higher risk groups.

A good example of tracking spend and savings from NHS Greater Glasgow and Clyde is our “Not for Play” programme in 2013. It highlighted that if only one case was prevented, the average costs saved to NHS GGC was £19,500.00. The costing is based on nine cases treated by the ENT department only and excludes other departments and specialties. In the pre-campaign year, there were nine children admitted to the Intensive Care Unit with liquid tab/laundry pod injuries. Hospital costs for these nine children alone, excluding all other A&E or ward attendances, amounted to £175,500 in total with a mean cost of £19,500 (range £4,711-63,890). The cost per cupboard catch safety pack is £0.84, amounting to £13,440 for the 16,000 packs ordered for year three. In year three the suggested costs saved are: £175,500 costs of treating 9 cases, minus the cost of packs at £13,440, equates to £162,060 saved in year 3 alone. On totalling the costs for the three consecutive years of Not for Play, year one and two and three, the total costs saved are estimated at £450,700.00 for NHSGGC alone. The costs of treatment for liquid tab/laundry pod ingestion are significant to the NHS and also to wider society. These costings exclude parental time off from employment, travel to hospital or arrangements to have other children cared for. They also exclude A&E attendances.

As part of a sensible wider review of all statutory duties and targets, the Scottish Government needs to urgently review and downgrade targets such as the 4 hour A&E target and judge the A&E on the basis of complaints and visual inspection of corridors and crowdedness and other measures of performance and quality, including the views of clinical staff and patient satisfaction. This may seem controversial but is actually a reasonable approach, particularly if combined with an emphasis on redirection policies and strengthening of general practice. The 4 hour target served a useful purpose in 2007 when it was introduced, attracting attention and resources to the A&E department which meant services were much improved and more staff employed. However, the chronic failure to comply since 2010 seen
throughout the UK, including in many health boards in Scotland highlights the fact that the main determinants of this compliance failure lie upstream and downstream from the A&E itself. We need to target the root causes of the problems rather than constantly react to the poor statistics by hiring more A&E staff and developing A&E pressure valves such as acute assessment units adjacent to the A&E. The fixation on the 4 hr compliance sucks resources into secondary unscheduled care.

Employing more district nurses and GPs is necessary to enable them to react to genuine need in the community so as to minimise unnecessary reliance on secondary and tertiary care in the future thus part of the answer to the question on reducing reactive spend. That is not preventative medicine as we think of it in public health terms. That is just intelligent, cost-effective health service planning because an early GP consultation is inexpensive and a stay in hospital, when the problem is more advanced, so much more costly.

3. How could spend that is deemed to be preventative be identified and tracked more effectively? What is required in terms of data, evidence and evaluation to test interventions for producing ‘best value for money’?

The implication in the question is that there are wonderful initiatives out there that prevent ill health and premature death but we simply can’t measure their cost-effectiveness and we need to try harder to demonstrate their existence and their value for money. The truth is that the wonderful initiative is staring us in the face: equalise opportunity and reduce the income/wealth gap. Use existing powers to do so. Given that the most important preventative strategy is to equalise opportunity, including by reducing the income/wealth gap between rich and poor, the identification and tracking of that ‘preventive spend’ would be relatively easy to do. Measuring the impact of a rise in taxation is straightforward.

The other implication in the question is that we are still short of data and evidence when many believe that we are drowning in both. We now have enough routinely collected data, available online, to evaluate many risk factors and interventions without having to leaving our offices. What we are short of, are the skilled and numerate people who know how to interpret that data and evidence.

However more transparency on reporting on traditional preventative spend would be welcome. The increase in discretion for local NHS Boards to make decisions about the allocation of the public health budgets in bundles has advantages but has the risks of variability and of using the money for other purposes. Given the financial pressures in the NHS, monies for prevention can be at risk if not ringfenced and in the current situation where there are few national targets attached to their use.

The Public Health Review identified approx 2.6% NHS budget spent on public health (including health visitors / school nursing) this figure should form the basis for future benchmarking of investment.

It would be worth considering how spending of the pupil equity fund will be monitored. This is a substantial investment and provides a wonderful opportunity for teaching staff to be involved in preventative activity. Reducing socioeconomic inequalities in attainment requires action beyond education services. Head-teachers
will need support with understanding the evidence base for what will work beyond education and support in monitoring the impact of their actions.

In the case of youth health, one of the approaches can (and should) be much more direct involvement of young people and their advocates in the process of developing, delivering and evaluating services. Lots of good examples of coproduction approaches (including our Aye Mind work, Young Scot’s youth commission on alcohol and also on 5Rights (digital rights), plus also good models for young people as service commissioners. No doubt many other means could be used, various communities of practice and regular sharing of approaches across the country. At the moment if feels like youth health is fragmented across multiple governmental departments, performance targets, funding streams, ditto health board and HSCP level planning in many cases (but some good practice in some areas, e.g. working through GIRFEC lens).

The recent (2016) publication by University of Manchester of the factors contributing to youth suicides, shows that we have a very clear handle on many of the risk factors that will put young people at risk – bereavement, trauma and neglect, bullying, exam stress, self harm, long term conditions; yet we struggle to galvanise a coordinated set of responses to these underlying factors – obviously our child and youth mental health framework is an attempt to support this, with some evidence of success, but much more could and should be done in this regard.

http://research.bmh.manchester.ac.uk/cmhs/research/centreforsuicideprevention/nci/reports/cyp_info_graphics.pdf

4. How can the shift of spending from reactive/acute services to primary/preventative services be speeded up and/or incentivised?

Bearing in mind the responses to the first three questions, it is obvious that one of the first things we need to do is downgrade targets (e.g. 4 hr target in unscheduled care.) However, it needs to be borne in mind that huge resource is still, despite recent improvements, tied up in hospitals in the form of unnecessary emergency admission including delayed discharges, particularly for the elderly. Some health professionals at the coal face also believe that far too much resource is needlessly tied up in community hospitals and nursing homes because patients enter these too soon in the natural history of their deterioration, because of inadequacy of community based services7.

Extracting these resources will be difficult for obvious reasons. Consideration should be made to providing a bridging loan to kick start GPs on the grounds that general practice has already demonstrated itself to be a highly cost-effective service and GPs the only professional group that could be expected to lead a community based health and social
care service. Primary care services need to be adequately funded and to be trusted to apply the art of medicine to the individual patient in front of them.

It is also important to note that the current Public Bodies (Joint Working) Act provides a power financial incentive for health and social care partnerships (HSCPs) to be focused on acute needs rather than preventative ones and tertiary rather than primary and secondary prevention, given that money should shift from acute service budgets to HSCPs budgets with reduction in avoidable admissions and delayed discharges. Some HSCPs include children’s services. Given the small visibility of children in acute service budgets there is a significant risk that early life course intervention and prevention is overshadowed by older people’s issues in these circumstances. The proportion of spend across the life course should be closely monitored to ensure it reflects need to rebalance care in favour of early life course intervention.

As stated above the committee should attempt to specify the proportion of public sector budgets for prevention where prevention is clearly defined. There should be a specified minimum proportion of relevant public health budgets allocated to prevention. This would require a clear definition of prevention and perhaps further delineation of spend in terms of greater focus on primary prevention.

Boards supported by the Scottish Government will have to make brave decisions about acute site closure where cost-effective to do so ensuring money reinvested in prevention rather than lost through efficiency savings.