113th ANNUAL MOH REPORT
Bailiwick of Guernsey

Special theme: ‘Health Equity’
Report for Year 2011/12
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SUMMARY

Thank you for your interest in this, the 113th Medical Officer of Health Annual Report for the Bailiwick of Guernsey. The special theme in this report is health equity. Also considered are infant feeding, dental and oral health and housing, a special report on reflections of the retiring State’s Analyst, and reports on business of the directorate.

Health Equity
Health equity means that everyone should have a fair opportunity to achieve their health potential. The UN declaration of Human Rights considers that Governments have an obligation to ensure everyone can achieve a standard of living adequate for health and well-being of himself and family, including food, clothing, housing, medical and social care, and social security. Underlying inequalities in health are inequalities in access to income, assets, employment, education, health and social care and social security, and civic participation. The World Health Organisation consider poverty the largest preventable cause of ill health worldwide.

Whilst Guernsey is fairly affluent and the majority of the population do have fair access to resources for health and well-being, a number studies over the last ten years or so have consistently shown that a significant minority of our population, an estimated five to ten thousand people live in poverty. Studies have also shown that local people who are less well off are much more likely to be suffering from physical and/or mental health issues. Poverty is more likely to affect families, single parents, and pensioners. Recent work on a Minimum Income Standard has shown that current social security rates are well below this minimum. Income matters for health because of the link with both material deprivation and restriction on social participation. Although, of course, the economy is a very important indicator of performance, it can also be argued that Guernsey is running at a health equity, or social justice deficit currently. The cost if this deficit is not only based on humanitarian terms, but also economic.

It is appreciated that Guernsey has performed well economically, but is currently facing significant challenges, and it is also appreciated that many people would not wish to see more public expenditure. However, children that live in poverty are much less likely to achieve their potential, and much more likely to need a wide range of services over their lifetimes than those not brought up with deprivation and the stress of poverty. As the Guernsey workforce may drop 15-20% over the next 30 years, investing in measures aimed to achieve as high a proportion as possible of children reaching their health potential is a very practical issue too. In addition poverty can be passed from generation to generation, so tackling the issue will also benefit future generations.
Unless there is an increase of wages for the lower paid, which does not seem likely currently then the only way of counteracting this situation is through redistribution of income through the taxation and benefits services. Although at first this measure may not seem likely to be popular, surveys have indicated that the majority of local people would be willing to pay more contributions to eliminate poverty.

Recommendations to improve health equity, include a new study to estimate the number of islanders whose income is below the Minimum Income Standard, a review of the taxation and benefits system with a view to providing a minimum income for healthy living for all islanders, a health impact assessment of changes in the systems, a re-designed health system to achieve affordable access to good quality medical, dental and optometric care for all, and the development of health equity measures within the States Strategic Plan.

**Housing and Health**

One of the first roles for the MOH and the forerunners of Environmental Health Officers, Inspectors of Nuisances, was improving housing given its huge impact on health. Guernsey has nearly 26,000 dwellings of which 63% are owner occupied, 26% in private rented sector and 8% in the social rented sector. In recent years, outside of social housing little has been done to improve the existing housing stock in Guernsey. There are also significant issues with older owner-occupiers who may not be able to afford to repair their houses. There is also a large number of private rented properties with poor insulation. Given issues of affordability there is recognised to be a homeless problem.

There is no local statutory standard of fitness of housing for quality of life and no standardised inspection regime. Poor housing for children is associated with unintentional injury and asthma. Falls at home in the elderly are a major health issue and cause of injury. Homeless people have much higher risk of health problems.

Recommendations to improve health include; increased availability of social housing for the less well off; introduce policies to improve insulation and heating in houses to improve health and reduce fuel poverty; introduce a legal housing standard to improve health and reduce injuries; agree a work programme to target resources to the highest risk housing areas.

**Infant Feeding**

Breastfeeding is an unparalleled way of providing food for infants, and has a range of other benefits such as less infections and hospital admissions, and less diabetes and obesity as the child grows up. There are also benefits to mothers who are at a lower risk of cancers, and putting on weight.
The World Health Organisation recommends exclusive breast feeding for six months. In Guernsey only 75% of mothers in 2011 initiated breast-feeding, despite the best efforts of the Baby Friendly accredited Princess Elizabeth Hospital, internationally a low percentage. We do not have valid Guernsey rates on the continuation of breast-feeding. However it is likely we are no better than the UK where only 10% of mothers breast-fed at four months, compared to 50% in Norway, putting them bottom of the international league tables.

Research has found that three key themes of “moral norms” “sexuality of the breast” and “self-esteem” are important in a mother’s choice to start breast feeding or not. Embarrassment is a key factor to younger mothers not wishing to breast-feed, particularly in public. This is not helped by the attitudes and behaviours of a small minority of the public towards mothers who breast-feed. In Guernsey less than half of mothers under 20 breast-fed. There are also practical issues such as inadequate workplace support or parental welfare provision. Breastfeeding targets are recommended for the States Strategic Plan along with a range of practical improvements such community services achieving UNICEF accreditation for breastfeeding, increase of peer or volunteer support, better workplace provision and improved maternity leave provisions.

**Dental and Oral Health**
Diseases of the teeth and mouth are common and as well as causing pain, loss of function and social attractiveness, cause the loss of many school and work days. Dental caries or decay is an extremely common preventable disease. Key risk factors are the frequent consumption of sugary foods and drinks.

Eight surveys of Guernsey five year old children since 1984 suggests improved dental public health over the last ten years. Dental health inequalities were seen between schools, with dental health better in schools with more affluent catchment areas. However, there are some issues with the interpretation of survey data between years because of different methods. There is anecdotal evidence of a double dental health inequality for children and adults just above the threshold at which they would be eligible for social welfare, the “working poor”, so that they have the disadvantage of both inferior dental health and financial barriers to be able to access dental services they need. There is a lack of analysis for older children and adults, such that there is inadequate knowledge to plan services adequately.
Recommendations include: a dental and oral public health needs assessment; research to improve the poor knowledge of dental public health in the island, particularly in adults including those with disabilities; development of policies to allow fair access to dental treatments; development of policies for businesses that care for children and vulnerable adults; development of preventative programmes; individuals to restrict their consumption of acidic and sugary drinks, replacing them with water or milky drinks; corporate organisations to show responsibility and to market healthy products; local sports association and clubs to stop promoting acidic energy or sports drinks; the States to consider a tax on sugary drinks to reduce consumption and provide funds for prevention.

Dr Stephen Bridgman
Medical Officer of Health, Guernsey,
November 2012
HEALTH EQUITY
Health Inequity, Health Inequalities and Social Justice

“Social injustice is killing people on a grand scale” World Heath Organisation (2008)

Underlying social injustice are key areas of inequality in the distribution of goods, opportunities and rights; income; assets, including capital, physical and land; opportunities for work and remunerated employment – the main determinant of income distribution; access to knowledge, through school, universities etc, as this enables social mobility; health services, social security and provision of a safe environment (underpinned by article 22 of the UN declaration of Human rights; civic and political participation (UN 2006).

“Inequalities in distribution are at the core of health inequalities” (UN 2006, p 17-19). However, it is generally acknowledged, that the distribution of power and how it is exercised by those who have it are at the core of the different forms and manifestations of inequality and inequity (UN 2006, p19). Internationally income-related inequalities, notably in the ownership of capital and other assets, in access to a variety of services and benefits, and in the personal security that money can buy, are growing (UN 2006).

Every society, even the laissez-faire variety, has engaged in the distribution and redistribution of income and wealth in some form, with policies generally favouring the poorest but sometimes benefiting the richest, and it is for this reason that issues of equity in living conditions remain central to the dialogue and debate on social justice (UN, 2006, p 17). Where differences in health can be avoided by reasonable action they are considered unfair, and termed “health inequity”. Correcting the large and remediable differences in health between and within countries, is matter of “Social Justice” (UN 2006, WHO 2008).

Internationally, Governments have an obligation to tackle this issue, based on human rights, as Article 25 of the Universal Declaration of Human Rights makes clear;

1) Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.
2) Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection (United Nations, 2012).
Poverty, whether defined by income, socioeconomic status, living conditions or educational level is the largest determinant of ill health (WHO 1999). It is associated with the undermining of a range of key human attributes, including health. The poor are exposed to greater personal and environmental health risks, are less well nourished, have less information and are less able to access health care; they thus have a higher risk of illness and disability. Furthermore, illness can reduce household savings, lower earning ability, reduce productivity, and lead to a diminished quality of life, thereby perpetuating or even increasing poverty (WHO 2012).

Children across the world have dramatically different life chances depending on where they are born. In Japan, Sweden and Guernsey they can expect to live more than 80 years, in some African countries less than 50 years. The poorest of the poor have high levels of illness and premature mortality. Over a billion people worldwide live in extreme poverty (World Bank 2012). The association of poverty and children’s mortality rates in Europe is shown in Figure 1.

Figure 1  Mortality among children younger than five years of age and percentage of deprived households (lacking three or more essential items) in selected countries in the WHO European Region

Sources: Jonathan Bradshaw and Emese Mayhew, University of York, personal communication, data from The state of the world’s children 2007 and Eurostat databases [online databases]
Health and illness follow a social gradient in countries at all levels of income: the lower the socioeconomic position, the worse the health (WHO 2008a). It is also the case that in wealthy countries, like the USA, Japan and the UK, the bigger the income inequalities the worse the health for the whole population, not just the poor (Wilkinson and Pickett 2009).

Figure 2  Relationship between income inequality and prevalence of mental illness in developed countries (The Equality Trust)

In the UK the health inequalities have been widening along with income inequalities in the last twenty years, such that they are now the widest they have been since 1921 (Thomas et al 2010). For every 100 people under the age of 65 who died in the wealthiest tenth of districts, 199 died in the poorest tenth (Thomas et al 2010).
The poor health of the poor and the social gradients within countries are caused by the unequal distribution of power, income, goods and services. This leads to visible differences in people’s lives, their access to health care, schools and education, their conditions of work and leisure, their homes, and their communities. This unequal distribution of health is not a “natural” phenomenon but the result of a combination of poor social policies and programmes, unfair economic arrangements, and bad politics (WHO 2008a).

All people need social protection across their life courses, as children, in working life and in old age. Protection is also needed when people are subject to a sudden negative life event such as loss of income or work, illness or disability. Low living standards have a major effect on the early years of childhood, and poverty is frequently transmitted from generation to generation. Worldwide, many people lack basic social security coverage (ILO 2003). There is also no doubt that differences in health within countries can change quickly with changes in policy, for instance adult mortality rose in the Russian Federation following changes in 1992 (WHO 1999).

Priority therefore needs to be given to improving health and reducing health inequities. Achieving these goals requires definitive action in the social determinants of health. It is a major public policy challenge. Necessary action is needed across the life course and in wider social and economic spheres, to protect present and future generations (Marmot et al 2012).

Health and social problems like violence, mental illness and education failure are all more common among the poor than the rich. In poor countries with widespread extreme poverty higher incomes and living standards will lift some people out of these problems. However, among rich countries, such as Guernsey, health and social problems are only weakly related to national average income. Countries inevitably reach a level of affluence where diminishing returns set in and additional income buys less and less additional health. More unequal societies have a higher prevalence of preventable problems that apply to the whole population (Wilkinson and Pickett 2009).

In Victorian times action was taken about the appallingly high death rates from cholera in cities, at least partly because of self-interest, when it was clear that not only poor people but the wealthy were dying. Today, the parallel is income inequalities. The more unequal the society is does not just affect the health and well-being of the poor, but all of us. More equal societies have better health throughout different social strata (Wilkinson and Pickett 2009). Social cohesion and trust are also protective of inequalities (WHO 2009). Social cohesion requires the reduction in the pursuit of status, and the valuing of every member of our society.
It is also the case that “The State” is no longer the main actor on the international scene, and its relevance will continue to diminish as the process of globalization gains momentum. Trans-national actors—mainly corporations and banks but also international organizations and social and religious institutions and movements—are playing an increasingly important role. Modern information and communication technologies (ICT) ignore borders and national sovereignty. National policies, including those aimed at addressing inequalities that contribute to poverty and other social ills, are routinely bypassed and overridden by the decisions of global institutions regulating international finance and trade (UN, 2006 p23). The worst problems of inequality and inequity exist within societies. However, social injustice, inequalities and inequities within societies can be more immediately and effectively addressed by a wide range of policies and decisions at the local and national levels that might, for example, bring about changes in tax systems and in the institutions delivering public services. (UN 2006 p24). Tackling these issues at an international level through a world government is not currently on the agenda.

Although relatively affluent, there is substantial evidence that Guernsey has significant health inequities and health inequalities. The rest of this section, considers some of this evidence, and then considers how we can build on the substantial good work to date to reduce inequities and improve health and well-being in the Islands.

**Local Evidence on Health Inequities**

**Townsend Centre for International Poverty Research Studies (Gordon et al 2001/2).**

The Townsend Centre undertook a *Survey of Guernsey Living Standards* (Gordon et al 2001/2l). They produced a series of four reports; the Necessities of Life; Views of the People; Poverty and Standard of Living in Guernsey; Anti-Poverty Policies for Guernsey. Although now just over ten years old they give a powerful insight into poverty on the islands that is still relevant today.

The groups identified by the Townsend Centre as being most vulnerable to relative poverty are still recognised in the States Strategic Plan (States of Guernsey (SoG) 2011, p1954).

There are many different ways of measuring poverty (Gordon et al 2002). The Guernsey study, based on UK studies, adopted a definition of poverty based on a standard of living unacceptable to the majority of the population. The validity of the approach rests on a cohesive view of what is unacceptable amongst different groups in society.
The primary meaning of need is “deprivation”. Townsend distinguishes sub-categories of material deprivation, food, health, clothing, housing, household facilities, environment and work, and of social deprivation related to family activities, social support and integration, recreational and educational (Townsend 1993).

Questions in the Guernsey survey were based on the Poverty and Social Exclusion Survey of England, with a few additional items and activities and questions modified taking into account the specific living conditions in Guernsey, in particular for the elderly.

There was a great deal of support from islanders to improve the quality of life for the less well off. Housing came out as the most important category, with costs and poor quality being key issues. Improved provision of free or cheap public transport and healthcare were also the other top single issues. The idea of raising incomes for the less well off, through higher pensions and benefits, better paid jobs and lower income tax were also suggested.

**Poverty and Standard of Living**

People were defined as being in poverty or poor, when they had both a low standard of living and a low income. A low standard of living was defined as not having at least four of the necessities of living as defined in phase 1 of the study, in which 50% of residents considered people should be able to afford and not do without.

Over 60% of lone parents and over 40% of single pensioners were in poverty. Of States renters over 50% were in poverty, compared to 25% of private renters and 6% of owner occupiers. In summary, people living in poverty go without a whole range of items because of a shortage of money. Subjectively 5% of the population considered they live in poverty all the time, and 16% some of the time.

**Housing and Health**

Six per-cent of respondents said the health of someone in their household was made worse by poor housing, ranging from 12% of those aged 16 to 29, to 9% of over 65s. Given the high rates of housing problems in Guernsey, especially damp, it was concluded that poor housing was affecting population health. The Guernsey figures, confirm extensive scientific evidence that poor housing significantly affects health (see section of report on housing and health).

**Health and Poverty**

The association of poverty and health were very marked. There was a linear trend between rising income and better health. For the great majority of health measures those who were poor fared significantly worse than those who were not poor.
When controlling for age, sex, household type, level of education and place of birth, the poor in Guernsey were found to be four times as likely to be ill than the rest of the population. Poorer people were over fifteen times as likely to report societal isolation or depression during the last year because of a lack of money than better off people.

The research showed a minority of people with such low incomes that their standard of living is below the minimum acceptable to the majority of islanders. Over 3,000 Guernsey households (16%) are estimated to be poor, with a low income and suffering from multiple deprivation that is 4 or more necessities of life which the majority of islanders think they should be able to afford. Of different groups, 63% of lone parents, 43% of single pensioners and 26% of large households with children were suffering from poverty.

Local Services and Poverty
Collective exclusion is defined as when services were not available, and individual exclusion when services were priced out of individual reach. Collective exclusion affected about 30% and individual exclusion about 14%. None of the respondents said they could not afford the doctor or chemist, but 6% could not afford to use the dentist. Five percent of respondents said they had collective exclusion from doctors.

Poor people were also found to have less social support, and had some difficulties when paying to use public sports and cultural facilities and the dentists.

Health Services
Six percent of people said they did not always have enough money to visit their family doctor and pay for medicine prescription charges when sick, and 9% did not have enough money to buy glasses, hearing aids or other medical aids. Several factors sustaining the association between poverty and poor health were:

- Difficulty in obtaining (and keeping) good quality, affordable housing for those on low incomes;
- Lack of affordable childcare for lone parent families on low incomes;
- Lack of suitable accommodation for the disabled;
- High cost of living on the island making eating a well-balanced healthy diet difficult for low income families;
On-going costs of healthcare for people with long-term medical conditions who do not receive supplementary benefit and who are in the low income bracket, many of whom are excluded from private healthcare insurance schemes by nature of their health condition.

One-sixth of young people aged 16-24 could not afford to visit a doctor and pay for medical prescription charges when sick, or to buy glasses, compared to 6% of the population as a whole. Young people were more likely to experience isolation and depression as a result of lack of money than all other age groups.

Perceptions of Poverty
The scientific measurement of relative poverty found that 16% of the population were poor. Seven percent of households said their incomes were inadequate to avoid absolute poverty and 12% general poverty. Many more people thought poverty would increase over the next ten years rather than decrease. Two-thirds of islanders thought poverty was caused by inevitable changes in society, injustice or bad luck.

Pensioners made up a third of poor islanders.

Suggested policy changes
Two main strategies were suggested to reduce the health-related costs of sick or disabled people. Instead of a small universal grant towards the cost of seeing the doctor which for many people had become meaningless, a much larger grant was suggested for those with chronic illness, consultations solely for a repeat prescription, and pre-school consultations.

The report points out that the UN Convention on the Rights of the Child commits signatories to provide the highest attainable standard of healthcare for children up to the age of 18, including full access to healthcare services (Article 21). This was considered to be best achieved through universal free healthcare provision funded through progressive taxation (“universal clawback”).

Greater regulation of the rental sector was considered, to counteract the lack of legally enforceable accommodation standards.

One of the findings that was perhaps one of the easier to address was the prevalence of poverty among single pensioners compared with pensioner couples. For a number of years following the Townsend Report, the States approved higher increases in pension rates for single pensioners than for pensioner couples.

Two-thirds of people supported a tax increase to end poverty.
Housing Need/Household Expenditure Survey

Opinion Research Services (ORS) undertook housing needs surveys in 2006 and 2011, with samples of about 1,500 Guernsey households interviewed and response rates of about 70%. (ORS 2007 and ORS 2011). Whilst the majority of households (over 95% in both surveys) were satisfied with their homes, there were some issues with the condition of Guernsey homes. ORS reported that, in 2006, 19% and of private rented houses and 17% of social houses suffered from penetrating damp, contributing to a total across all Guernsey households of 10%.

In 2011, ORS reported that 12% of houses had damp penetration, with serious damp reported in 4%. ORS also reported that 6% of houses had condensation (black mould) that was a problem, and this was three times more likely in both social and private rented housing as in owner occupier housing. Damp and mouldy homes double the population risk of asthma in children (Marmot et al 2012).

In 2006, the survey showed that it was social tenants and those on the lowest incomes who were most likely to be having difficulties with their housing costs. By 2011, the proportion of all households who reported problems affording their rent or mortgage had risen to 16%. While households on the lowest incomes and social housing households still had the most difficulty in meeting these costs, the position of private renters had worsened most rapidly so that they were as likely as social housing tenants to report problems. In 2011, 20% of households were currently living in unsuitable housing, which means “anyone with a housing issue”, for instance good quality accommodation but too small.

In 2011, households on low incomes were four to five times more likely to contain someone with a long-term health problem than those on higher incomes (ORS 2011). They were also five times more likely to have housing costs causing a strain or extreme difficulty, with around 30% of those on less than £10k having a problem. Five percent of households were in technically overcrowded accommodation, although only half of these thought it was a problem, and around 20% of the population had problems with fuel bills. Five percent of households had a single parent with dependent child(ren). Current accommodation was not felt to meet the needs of at least one household member in 3% of households. Neither survey sought to elicit anyone who considered their health was negatively affected by their housing.

The results of the 2005/06 Household Expenditure Survey indicated that 17% of respondents, and 18% of children, lived in households with an income below 60% of median income, which is the European standard indicator of relative poverty (SoG 2011b, 2012d). Eight percent of households lived below 40% of median income. The median income in 2006 was £23660 (SoG 2011d).
Health Inequalities in Guernsey from a Health Promotion perspective

Spencer (2010) undertook a qualitative study of health inequality concerns among local professionals. It was concluded that Guernsey does have significant areas of inequality that can be improved.

A summary of these health inequality concerns are as follows:

- The high cost of GP appointments;
- Shortage of social housing accommodation; Inappropriate and sub-standard private housing;
- Insufficient health and social support for adults with learning disabilities;
- Lack of free early intervention support for people with mental health illnesses;
- Inadequate community and housing support for people with mental health illnesses;
- Financial concerns for those just above the threshold for Social Security support;
- Social and housing concerns for older people;
- Language and communication barriers for people who do not have English as their first language; and
- Concerns for families who do not register with a GP or health visitor when coming to live in Guernsey.

Since Spencer’s report but not because of it, Social Security have funded HSSD to deliver primary care mental health services that has been shown to be very successful at meeting a previously unmet need. In addition work is ongoing to address housing concerns for older people, in addition to initiatives in other areas. There is also an important mental health strategy being developed within the framework of the States 2020 vision of the future of the health and social care system (SoG 2011c).
Guernsey Minimum Income Standards Study

The Guernsey Minimum Income Study is a very important measure of income adequacy. It was carried out by Loughborough University in 2011 (Smith et al 2011).

Minimum income is the amount of income that people need to reach a minimum, socially acceptable standard of living, based on what the local public think, and taking into account expert evidence such as on nutrition and home energy consumption. It is calculated by specifying baskets of goods and services required by different types of households to meet those needs and to participate in society. A minimum standard is more than just clothes, food and shelter. It is about having what is needed to have the opportunities and choices necessary to participate in society. It is of interest to note that the local public considered medical insurance essential for all households.

This study showed that a single pensioner required £356 per week, and a family with two children approaching a £1,000 a week as a minimum income. These figures are based on social housing, and for islanders renting in the private sector costs would greatly exceed this. These figures are at least 20-40% higher than UK figures, and reflect the high cost of living in Guernsey.

This study is important as it gives some scientific evidence on income needs for islanders. The work has been used for recent proposals to reduce income poverty through the welfare system (SoG, 2012, p 1023).

Mental Health and Well-Being Survey

A survey was carried of mental health and well-being of adult islanders (Johnson et al 2011). Measures used were the validated Warwick and Edinburgh Mental Wellbeing Scale (WEMWBS), and the Hospital Anxiety and Depression Scale (HADS).

"Of note was the association between being unemployed, having a low income and Low Mental Wellbeing. Overall, 53% of the unemployed group versus 18% of those in work were classified as having Low Mental Wellbeing. This equates to three times greater risk of low mental well-being for those who are unemployed. It is not possible to infer the direction of causation. In other words it may be that the unemployed are out of work because of their low mental wellbeing, or, alternatively, it could be that low mental wellbeing developed as a consequence of being unemployed. No person in the lowest income group was classified as having High Mental Wellbeing." (Johnson et al 2011)
The association of lower mental wellbeing with unemployment and low income recorded by the WEMWBS was replicated in results from the HADS. 21% of the unemployed group reported experiencing anxiety and depression, whereas the same could be said for only 5% of the people who were in work (a risk ratio of 4:1) and the lowest income group reported the greatest incidence of self-reported anxiety and depression symptoms (18%).

Summary

Despite Guernsey’s relative wealth, there is substantial evidence for a significant level of poverty and social injustice affecting a minority of the local population. This poverty and social injustice will not only have a significant negative effect on the health of the islands, there will be a very significant negative economic impact too.

A Suggested New Approach to Improving Health and Health Equity

Every aspect of the government and the economy has the potential to affect the determinants of health and health equity, including finance, education, housing, employment, transport, health and social services, culture and leisure (WHO 2006). The breadth of the social determinants of health are indicated in Figure 3. It could be argued that the Treasury and Resources Department has more influence and impact on health and health equity than the Health and Social Services Department. Health and health equity may not be the aim of all societal policies but they will be a result of them.

The Department of Health and Social Services, its Minister and Board are crucial in championing the social determinants of health approach at the highest level of society, demonstrating good practices and supporting other Departments in creating policies that promote health equity. Action on the social determinants of health must involve the whole of government, civil society, local communities, business, and international agencies.

Policy coherence is crucial. This means that different departments’ policies complement rather than contradict each other in relation to the production of health and health equity. For instance current trade policies give duty free incentives for the public to purchase cut-price tobacco and alcohol products.

Another example of the crucial importance of other States Departments is the role of the Environment Department with its control of the planning and delivery of the key social determinants of spatial planning and transport, and the Education Department given the strong association between educational attainment and health (Rydin et al 2012).
Figure 3 The Health and Wellbeing Map showing the relationship between health and the physical/social/economic environment with people at the heart of the map (after Barton and Grant, 2006)

Recommendation 1: Health and health equity is explicitly considered in all key Government Policies and Programmes.

In the States of Guernsey Strategic Plan (2011-16, p1903) the importance of social issues is recognised through several broad objectives to tackle social problems, including specifically; promote, and remove barriers to equality, social inclusion and social justice; meet welfare needs and reduce poverty; improve housing availability, quality and affordability; maintain a healthy society and safeguard vulnerable people. However, the social issues behind these objectives remain very significant, and will require clear, concerted, and evidence-based action to successfully address.
Making the progress society wishes will not be easy, for instance over a decades work to reduce health inequalities in England, while probably helping to improve general health of all, has proved to be unsuccessful in reducing inequalities (Thomas et al 2012). The World Health Organisation Commission on the Social Determinants of Health, has also brought the reduction of avoidable health inequalities between social groups to the centre of the political stage (WHO 2008a, Hunter & Wilson 2012). The commission had three key recommendations, or areas of action, to reduce health inequity:

- To improve daily living conditions
- To tackle the inequitable distribution of power, money and resources
- To measure and understand the problem

It is important to adopt a life course approach to policies, in order to prevent future disease. Interventions should start at an early age, and continue throughout the life of a child because what happens in early childhood has a huge impact throughout life (Figure 4), and further into the next generations.

Figure 4  Action is required throughout our life courses (after Marmot 2010)
**Brief consideration of Guernsey with a United Nations Framework for Social Justice**

For the next section of the report, the first two WHO areas of actions will be briefly considered using a framework in a United Nations publication. Given the complex array of policies, this section is illustrative of some key issues, not a comprehensive review of them. Six key areas of inequality in the distribution of goods, opportunities and rights, that underpin social injustice and health inequity (UN 2006) are:

i. **Income**;

ii. **Assets**, including capital, physical and land;

iii. **Opportunities for work and remunerated employment** – the main determinant of income distribution;

iv. **Access to knowledge**, through school, universities etc, as this enables social mobility;

v. **Health services**, social security and provision of a safe environment (underpinned by article 22 of the UN declaration of Human Rights);

vi. **Civic and political participation**.

### i. Income

Having enough money to lead a healthy life is central to reducing health inequalities. Income matters for health because of the link with both material deprivation, and restriction on social participation and opportunity to exercise control over one’s life. Above a threshold of material deprivation, income may be more important because of its link with these social factors related to social conditions. A policy of not redressing income inequalities through the tax and benefit system, linked to lack of investment in public goods that brings the benefits of richer communities to all, will damage health (Marmot 2002).

Currently, Guernsey does not have figures on income inequality either between Guernsey and other jurisdictions or within Guernsey, although work is underway to consider these (A Sloan, States Economist, personal communication). Of course, it is not just income, but the cost of goods and services that determine what that income can buy. We know that in Guernsey the cost of living is much higher than the average in the UK (Smith & Davis 2011).
The Townsend Centre studies referred to above showed that a decade ago there was significant inequalities in income in Guernsey, with an estimated five to ten thousand islanders earning or receiving insufficient income to meet needs considered essential by the majority of islanders (Gordon et al 2001/2).

The Minimum Income Study for Guernsey defined the minimum income standards of individuals or families to be fully included in social life, although recognising it probably underestimated income that was required (Smith & Davis 2011). There is currently no analysis of how many islanders have an income below minimum standards.

| Recommendation: 2 | Further research is undertaken to estimate the number of islanders below Minimum Income Standards |

The basic strategies for greater income equality are either;

i. using taxes and benefits to redistribute very unequal incomes,

ii. or by greater equality in gross incomes before taxes and benefits, which leave less need for redistribution

Most Western States, including Guernsey, use taxes and benefits to improve income equality, while Japan, which is a relatively low tax jurisdiction, has much fairer gross incomes (Wilkinson and Pickett 2009).

Guernsey implemented a statutory minimum wage in 2009 based on the fundamental principle that it is unacceptable in the current social and economic climate in Guernsey for employees and workers to be paid low wages to the point of exploitation (States of Guernsey 2012b). The Minimum Wage is not intended to reflect a ‘living wage,’ as there are a number of social policy initiatives administered by the States through Social Security, Housing, and Income Tax, which provide a wide range of benefits, grants, social housing, housing rent rebates, and tax arrangements to help those on low incomes. It was noted that the island does not have a definitive set of pay rates. Consideration was given to the impact of the policy on vulnerable businesses. The health impact and health equity impact of this policy on vulnerable people was not examined. There has been some concern that some employers have dropped starting salaries down to the minimum rate, thereby potentially making poverty worse.
Using Taxes and Benefits to Increase Income

The system and subject of benefits is highly complex. The following section looks at supplementary and housing benefit.

- **Cost of Living Benefit: Supplementary Benefit**

Given the recognition that the minimum wage in Guernsey is not a “Living Wage”, it is of significant concern to the health of islanders, that proposals in early 2012 to introduce improved supplementary benefits for those on low incomes were not supported, even though they were still below the Minimum Income Standards.

The amended legislation would have entitled all people with income below a given level to claim income support, but would place work-focused obligations on all working-age people receiving support, including the dependants of primary claimants, unless by exception (SoG 2012).

It has also been shown that supplementary benefit claimants, no matter how great their need or how low their income, could receive a maximum income (apart from family allowance and any earnings disregard) of only £450 per week, if that income included any amount of supplementary benefit at all.

This has a particularly severe impact on larger families (including two and three child families in which the children are teenagers) because these families have a higher total requirement rate and are also likely to be paying more rent, in order to find accommodation of a suitable size (SoG, p1009). The figure of £450 a week is well under the minimum income standard for Guernsey.

The modernisation of the supplementary benefit system aimed to reduce the proportion of people living on less than the minimum income standard (SoG p1047), and to reduce relative poverty is possibly the most important intervention currently proposed to improve health and well-being on the islands. The potential health and well-being impact of the intervention has yet to be systematically assessed. In particular, breaking the cycle of poverty in the lives of infants and children can lead to substantial health and economic gains for present and future generations (WHO 1999, 2008, Marmot 2010). Given the predicted reduction in workforce over the next few decades, there is both an economic and practical imperative for Guernsey to eliminate poverty and enable all to reach their health potential.
- **Housing Benefits**

Because of the very high cost of housing on the islands, rent related poverty is a real issue for many tenants in the private sector and for those tenants with large families on low income living in social housing (SoG p1007). Currently, existing schemes do not give any degree of assurance that the basic needs of a person will be met after they have paid their accommodation costs. This impression is backed up by the observations of community nurses.

Although families living in social housing cannot be considered well-off in any way, comparable families in private rented accommodation – families with the same number of dependent children, and the same initial level of income – are substantially worse off. (SoG, 2012, p1008)

The purpose of social housing is to permit single people and families who could not afford to rent privately to live in affordable, good quality accommodation. For elderly and disabled people in particular, it provides accommodation of a standard which allows them to maintain a good quality of life, good health, and freedom of movement and independence within their own home. (SoG, 2012, p1005).

One important issue raised in a joint report by the Social Security and Housing Departments is a fundamental injustice within Guernsey's current systems of welfare provision: that low income families living in private rented accommodation are almost always worse off than their counterparts in social housing, even if both families are claiming supplementary benefit. Social housing tenants benefit from the rent rebate scheme, which has no equivalent in the private rented sector. (SoG, p1005). Social housing tenants are among those with the lowest incomes in the community and a majority of tenants would still struggle to pay the ordinary rent (the standard weekly rent) for their property. In order to mitigate this, the Housing Department operates a rent rebate scheme. (SoG 2012).

No social housing tenant spends more than 25%, of their income on rent, and some will pay significantly less. About 90% of tenants received a rent rebate. Proposals for change argue that there are two key principles at stake. The first is a matter of simple equality – ensuring that means-tested welfare provision evaluates the needs of all islanders equally, and meets those needs in an equal measure. The second is a matter of social justice – examining whether the level of benefit support currently provided by the welfare system is sufficient. Therefore a single housing-related benefit has been proposed (SoG 2012,p1008).

The health impact of these proposed changes has not been assessed. However, ensuring all residents have enough income to lead a health life is highly likely to have a substantial health impact, and reduce health care costs.
- **Income Tax**

Income tax is levied on income levels that are below those of the Minimum Income Standards (States of Guernsey 2012c, Smith & Davis 2011). This is likely to be increasing poverty and therefore health inequalities. In the UK it has been observed that the household quintile with the lowest income has the highest tax as a percentage of gross income (Marmot 2010, Fig 4.3).

Income tax changes are not subject to a systematic assessment of their health impact.

- **Coherence and Impact of Policies**

The lack of support for proposals to improve the unfair standard of living experienced by some residents, will have a social, human and ultimately financial cost in meeting the consequences of poverty. There needs to be increased coherence of policies, in the assessment of the health impact of these decisions, and the economic impact of the inevitable health and well-being deficits that will arise.

The case to reduce income inequalities and poverty is not just a humane objective, but an economic one.

<table>
<thead>
<tr>
<th><strong>Recommendation 3:</strong></th>
<th>Review and implement system of taxation, benefits, pensions and tax credits to provide a minimum income for healthy living.</th>
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<tbody>
<tr>
<td><strong>Recommendation 4:</strong></td>
<td>Health impact assessment of the modernisation of the welfare system is carried out, looking at the effect on health, well-being and the economy of reduced poverty levels.</td>
</tr>
<tr>
<td><strong>Recommendation 5:</strong></td>
<td>Income tax changes should be subject to at least an assessment of their likely health and well-being, and health equity impact.</td>
</tr>
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</table>
ii. Inequalities in assets, including capital, physical and land

- **Housing**

As private rental accommodation and house ownership are both expensive on the Island, the demands on the social housing stock are great (Spencer 2010). The stress caused by inadequate or inappropriate housing is a significant contributing factor in health inequalities, and people of all ages can be affected, from babies to older adults (Spencer 2010).

The States aim to maintain and improve the quality of housing in Guernsey across all sectors bearing in mind the impact of housing conditions on the health and well-being of the community (SoG 2011).

The cost of housing is a major issue, and associated with the very high likely costs of housing is rent-related poverty. The “free market” in housing is a concern, given the ability of individuals or organisations to buy private housing and speculate on the capital value, and drive up rental values. In Guernsey this speculation is “tax-free” income, as it is considered capital gains.

The health affects of housing are considered in more detail elsewhere.

- **Access to Green Spaces**

Green spaces are associated with lower all cause mortality and cardiovascular deaths (Mitchell 2008).

Health visitors and school nurses are concerned about the quality and appropriateness of housing for poorer Islanders, reporting that many women with young children are housed in multi-occupancy flats without an outdoor space (Spencer 2010). Green spaces also provide the opportunity to improve mental and health well-being, including the development of social networks and relationships, all of which are associated with lower mortality and improved well-being (Luria and Lyons 2010). A number of studies have also indicated that outdoor play helps children’s intellectual and social development (Luria and Lyons 2010).
iii. **Opportunities for work and remunerated employment – the main determinant of income distribution**

The level of unemployment in Guernsey remains low compared to other jurisdictions. Figures released at the end of September 2012 by the Social Security Department recorded that there were 349 people registered as unemployed and available for work, which represents 1.1% of the working population. In Alderney 11 people, were unemployed (M Nutley, Social Security Department, personal communication).

Guernsey’s government and civil society can take great credit over the years in keeping unemployment low, a major issue in many Western Societies.

High employment is good of course, not only for the health of the population but for the financial balance sheet.

A dilemma is the level of remuneration, which for some people on full time work, and in particular for families is below that required to avoid poverty, as discussed above.

iv. **Access to knowledge, through school, universities etc, as this enables social mobility**

Health is positively associated with level of educational attainment

Guernsey has a free at the point of delivery universal primary and secondary education service, and subsidised means tested support for further education. This enables some social mobility. There remain, however, some key areas for improvement to reduce educational and therefore health inequalities.

A good early year’s home learning environment with parents interested in their children’s education and reading with their children is vital. The need for improved parenting programmes was noted in the 112th MOH report. This area will be considered within an amended Children and Young People’s Plan.

Research clearly shows that good-quality early education does benefit children in the long term, particularly the most disadvantaged. The Effective Provision of Pre-School Education (EPPE) project, for instance, has shown that high-quality, pre-school provision enhances children’s all round cognitive, language and social development (Department of Education 2012).
The Millennium Cohort Study found that at the age of 5 children from the most advantaged groups were found to be over a year ahead in vocabulary, compared to those from disadvantaged backgrounds. Ensuring access for all children to good quality pre-school education will reduce health inequalities and improve health inequity. The Education Department are actively considering very important proposals in these areas.

Selection at age 11 has been a controversial subject in Guernsey. Mulkerrin (2011) on his review of Education Services in Guernsey wrote:

*The downside of the Guernsey selective system is that it is too easy to create “winners” and “losers” in terms of the schools the children go to. The problem is if people feel they are losers, some will start acting as losers. Long term, this simply reinforces social exclusion in the island. Selection also creates divisions between children who have been to the same primary school and disrupts friendships that have been built up over years.*

Selection at age 11 was originally introduced into the UK in Victorian times and the driver was newly provided State funded secondary education that was not universal, so that some selection was required to allocate children to the limited places. Guernsey was cited along with London, German and USA cities as a place at the cutting edge of educational research at this time.

Locally it was driven by Lieutenant-Adjuvant Charles Spearman who was billeted to the island in the Boer War. Spearman later became the first Professor of Psychology in the UK. Once secondary education became universal, the policy driver for selection within the States education system became redundant. Further local research is needed on actual local benefits and harms of selection as part of the review of selection at age 11.

Also important for health equity and social mobility is the Skills Strategy which is about preparing young people for employment as well as developing skills for adults whether in or out of employment. This will enable people to improve and adapt their skills, and thereby enhance their job prospects and income.

v. Health services, social security and provision of a safe environment (underpinned by article 22 of the UN declaration of Human rights)

- Social Security

Guernsey has a very significant Social Welfare provision, for instance through Social Insurance Benefits, Health Insurance Benefits, Long-term Care Insurance, Supplementary Benefit and rent rebates for social housing. There is no doubt that this help has a huge impact on many local people’s lives.
Despite these progressive social policies, from local studies carried out by the Townsend Centre a decade ago, and from data within the States Strategic Monitoring Report (2012d), it can be estimated that five to ten thousand people are in poverty. It is unknown whether this number has increased or decreased since then. Given the progress in the last decade some commentators have concluded that poverty is not a priority for the States of Guernsey (Guernsey Press 2012a). The reason why countries such as Sweden, Finland and Norway score well on the UNICEF index of child wellbeing is that their welfare systems have kept rates of relative poverty low among families (Wilkinson & Pickett 2009).

Arguably poverty is the most important issue to be tackled to improve the average health and well-being on the islands, and although requiring investment there will be an economic return on investment in problems prevented that the taxpayer would otherwise have needed to fund the mitigation or treatment of. Given the likely size of the poverty issue on the islands, it can also be argued that Guernsey is running at a social justice deficit.

- **Health Services**

Comprehensive secondary healthcare is paid for through compulsory social insurance collected by the Social Security Department. This leaves some local families who are not covered. The 108th Annual MOH Report stated: “According to 1996 Guernsey Census, only 49% of people had private health insurance, and it was estimated that some 20% of the population risked severe financial difficulties from medical costs alone.” There is not a recent survey of the proportion of the population with health insurance.

Local studies have shown that people immediately above the social security threshold for receiving supplementary or medical benefits may not be able to or decide because of other social priorities not to access primary medical, dental, or optometric care because of expenses. (Gordon et al 2002, Spencer 2010). The system also leads to perverse incentives of people tending to only seek help when they are unwell “sickness” services instead of for preventative reason. Lack of access for some people to primary care may lead to increased costs for individuals and the States when these people fall ill because of problems that could otherwise have been prevented.

Currently the monopoly of primary care providers is being considered by the Guernsey Competition and Regulatory Authority, and could lead to reduced costs and better access, but this is unlikely to solve the problem of funding care for people just above the social welfare level. Later in this report, some of the problems around basic dental care are discussed, and there are also issues about access to optometry.
HSSD are currently leading a review of the whole health care system as part of the 2020 Vision (SoG 2011c). There is a unique opportunity for this work to enable Guernsey to be one of the leading island health and social care systems in the world.

The current significant budget reductions in and health and social services as part of the Financial Transformation Programme (see front cover) are likely to have a some negative impact on less affluent members of our society in particular.

**Recommendation 6:** The new health system needs to achieve affordable access to good quality preventative, medical, dental and optometric primary care for all.

**vi. Civic and political participation**

**Legal Representation**

Access to justice has been recognised in many countries action plans on poverty and social inclusion (EU 2004). The high costs of legal advice on the island means it is highly likely to be an issue. There is a legal aid system which is subject to a means and merit test. There is a sliding scale of contributions, but the financial cut off level means that some people on a relatively low wage, but who are financially ineligible or assessed to be on a contributions to their aid may struggle to get access to legal assistance. This may be a problem for both criminal and civil cases.

Legal Aid is not available in money claim cases in the Petty Debts Court where there is a maximum limit of £10,000. This means that people have to either pay an Advocate or represent themselves in such, which may be a significant problem for e.g. a tenant who is in dispute with a landlord or someone with other debt problems. Legal Aid may be available for eviction proceedings. The other barrier is there are limited alternatives to litigation. However there is some family mediation offered by the Safeguarder Services and free advice from the Citizens Advice Bureau.

People on supplementary benefit get a “free passport” to legal aid if the case merits it, so again there are particular problems for people just above the benefit threshold. Further work is needed to define barriers on access to justice.

The relatively high cost of professional legal fees will be a barrier for justice for some people.
Community Engagement

In improving social systems, the evidence is clear that the best outcomes are obtained if people who are the target of improvements are engaged in designing the solutions, rather than solutions being foisted on them with little involvement. An example of one city which had both success and failure in this regards was Liverpool. The Eldonian village was developed in a deprived area, and when people refused to be relocated the local authority worked with local people to design a range of housing that enabled them to live in the same areas and maintain their social networks throughout their life-courses, from childhood to old age. Other people were relocated to social housing when they were not involved in the design, and some of this was knocked down as unsuitable before it was paid for.

Community Culture in Social Justice

- Paying for Reduction of Health Inequalities

In making this happen the views of all of us and the work of the Treasury and Resources Department are incredibly important. It is understandable that politicians and the public would wish low taxes and the most efficient and effective public services possible. However, finance itself is only a means to an end, and there are consequences and potential long-term costs to reductions in services of welfare support, through for instance reduced health.

In terms of well-being, if one is hungry then a meal of bread can make a massive difference to well-being. Having two, three, four, or five loaves all at once makes little difference to that individual in terms of their well-being. However, if there are five people hungry and one person takes all the bread, then the well-being gain will only be a fifth what it might have been. Would it not be fairer to take a little more from the wealthier so that everyone can participate in society and achieve their health potential? There is some evidence that the majority of local people are willing to pay more tax to eliminate poverty (Gordon et al 2002).

Tax is not the only way to fairly redistribute income. In Japan this is done by much lower wage differentials, and a fairer wage structure than seen in most wealthy countries. Consequently the lower paid, who may work just as hard as the higher paid and do very valuable jobs, get paid relatively more so there is less need for redistribution, and low taxes. (Wilkinson 2009). However it is interesting to note that in Guernsey there have been concerns that the Minimum Wage has had unintended consequences by some employers paying a lower wage.
Community mindset

The other issue is the mindset of our community. Do we think community or keeping up with the Jones’ to show that we are “high status” humans. In Oregon, Western USA, some years back, an advert said “come to Dean’s boatyard - show your friends you are not just an ordinary millionaire, but a multi-millionaire.” This at a time when there was significant poverty, and ordinary people on the buses did not have enough money to pay for basic health insurance cover and may have been unable to obtain healthcare if they were acutely ill. At a community level an ordinary millionaire boat and a bit more wealth redistribution would have made a big difference to community well-being. The USA, despite its wealth, has some of the greatest wealth and health inequalities in the Western world. In some places this leads to a worse standard of living for the wealthy as they need to protect themselves with high fences and guns from the threat of crime.

I suspect that most Guernsey people would accept that narrowing the gap between the “haves” and the “have nots” by eliminating poverty was fair.

Measurement and Further Research in Health Inequalities and Health Equity

WHO recommend that States should undertake surveillance of health inequalities (WHO 2008a).

The WHO European Region set as one target, progress on equity in health, that by 2020 the health gap between socioeconomic groups within countries should be reduced by at least one fourth in all member states, in particular substantially improving the level of health of disadvantaged groups (WHO 1999).

In particular they advised that countries should by 2020;

i. Reduce the gap in life expectancy by 25% by socioeconomic groups

ii. Values for major indicators of morbidity, disability and mortality in groups across the socioeconomic gradient should be more equitably distributed

iii. Socioeconomic conditions that produce adverse health effects, notably differences in income, educational achievement and access to the labour market should be substantially improved

iv. The proportion of the population living in poverty should be greatly reduced
v. People having special needs as a result of their health, social, or economic circumstances should be protected from exclusion and given easy access to appropriate care.

A recommended framework for a minimum health equity surveillance system are given by the WHO (2008a, Boxes 16.2 and 16.3).

The States Strategic Monitoring Reports (SoG 2011b and 2012d) contain key performance indicators used to measure progress against the aims of the States Strategic Plan (SoG 2011b). The indicators are divided into fiscal and economic, social, and environmental to reflect the existing policy groups that report to Policy Council. In addition the Health and Social Services Department have recently produced a Health Profile which looks in more depth at health indicators (Cataroche and Bridgman 2011), and HSSD will be developing key performance indicators as part of the 2020 Vision.

Currently the States have targets for adult and childhood poverty (SoG 2012d), but the targets have not been quantified (SoG 2012d). The measure used is the percentage of people below median income, which is a European indicator of relative poverty (SoG 2012d). A further local target which should be considered is to progressively increase the percentage of households that have an income after tax and benefits that is sufficient for healthy living and social inclusion, as defined by the Minimum Income Standards for Guernsey.

A target has also been set for total unemployment being equal or greater than 2%. Although unemployment has been rising, this target is currently being met.

While there is not currently a target on income inequality, income is such an important determinant of health, that one should be set. An alternative or additional measures would be that adopted by Scotland, which aim to increase both overall income for everyone and the proportion of income earned by the three lowest income deciles as a group. There are other internationally used measures of income inequality that could also be considered (Wilkinson and Pickett 2009).

**Recommendation 7:** The States adopt an income inequality measure as a Key Performance Indicator for health equity.

There are some targets for educational achievement for children but not adults, although adult targets are planned to monitor the progress of Guernsey Skills Strategy. Measures of educational achievement should be broken down by socioeconomic factors.
Guernsey's key health performance indicators have been developed across the whole population too (SoG 2012d). For health statistics, Guernsey frequently compares itself to the UK, where we share for instance a cancer surveillance system. A common method of inequality monitoring used in the UK has been to use deprivation indices based on geographical areas broken down by deprivation index, but this measure is not available in Guernsey. School-catchment area has been used locally to show inequalities in health (Cataroche and Bridgman 2012), and they have also been used to practically target resources to geographical areas perceived locally to be more deprived (see dental section of this report). Given owner-occupied residential areas tend to be more affluent, one problem in Guernsey in creating a geographically based local deprivation index has been the mix of housing tenures in close proximity.

Alternative measures of population stratification to geographical areas that can be considered for socio-economic monitoring of health inequalities include geography, ethnic origin, educational attainment, occupation, housing tenure and disabilities. Monitoring by receipt of benefit, e.g. supplementary or clothing grants should also be considered.

Guernsey has a robust system to monitor and code causes of death through the Public Health Directorate. Further monitoring of morbidity in Guernsey requires development, and in particular access to primary care data. Although the States invest around £20million in primary care indirectly through health care and pharmaceutical benefits to patients, there is requirement yet for the provision of health statistics from this sector of the health economy. There is an opportunity to achieve this with a planned review of the healthcare system.

**Recommendation 8:** Health equity indicators within Guernsey require further development, including using primary care data.

While statistical data are essential to describe the extent of a public health problem, they do little to explain the experience of that problem or its impact on people's lives (WHO 2008a). Providing a sense that real life experience is essential for advocacy and for giving policy makers and others stories that can change hearts and minds (Baum 1995). Sometimes, the qualitative aspects of inequality are often extremely difficult to measure, and only very specific and detailed enquiries could, for instance, reveal the extent of open and covert discrimination that in most societies affects people who are in any way different from the majority. Such data can be collected by community and voluntary organisations as well as professional staff. More qualitative research is needed locally on the impact of health inequities on local people.
Recommendation 9: Qualitative research is needed on the impacts of health inequities on local people

Currently the health of and access to health of some vulnerable clients such as those with disability are not routinely monitored. These issues should be addressed in the developing States disability and equality strategy. In addition, migrants throughout the world are considered at high risk of health inequalities, and poverty, and worldwide commonly face social exclusion (Marmot et al 2012). This is an area little explored in Guernsey, and requires further research.

Recommendation 10: Local research is undertaken to assess the health needs of ethnic minorities and migrants

Collaboration with other Small Jurisdictions

Putting right the major and remediable differences in health within Guernsey is a matter of social justice. It has been recognised that the impact of social changes in small countries can be particularly rapid. For instance the UK Government’s arguably highly unfair and discriminatory decision on Low Value Consignment Relief led to job losses and will have had a significant, but unmeasured impact on local health and well-being (BBC 2012).

Guernsey already works closely with the other Crown Dependencies of Jersey and the Isle of Man. There is also interesting comparative work undertaking by Island Analysis (2012) in comparing small jurisdictions.

In addition The WHO European Region, led by the San Marino Government, has set up a project to establish a strategic platform for investment for health and development for small-population countries, which will bring together WHO, countries, academic institutions and regional development organizations with a shared interest in developing policy and governance responses that advance health equity as part of a fair and sustainable society (WHO 2012d).

Recommendation 11: Guernsey should consider participating in the WHO network of small European jurisdictions that wish to advance health equity.
References/Bibliography


Introduction

The impacts on health from housing conditions have been well understood for over two hundred years. Philanthropic industrialists of the eighteenth and nineteenth centuries spent their own fortunes on building accommodation for their workers because they understood that if people had good quality housing, free from overcrowding and disrepair, they would be healthier, happier and more effective members of society, and more productive workers.

The first Medical Officer of Health (MOH) was appointed in 1847 (Ashton 1989). In 1872 and 1875 the first Public Health Acts were introduced in the UK. These required ‘Local Boards’ to employ an MOH and Inspectors of Nuisances to undertake the first ever regulatory public health roles, aimed at improving the squalor of the towns and cities by preventing poor accommodation and overcrowding and preventing the spread of disease.

This work is still undertaken today by the MOH and Environmental Health Officers, although this is now delivered to meet current standards for population health; improving health and well-being and improving the quality of life for our community.

In Guernsey, there are no local housing standards that set the minimum requirements for accommodation; this is unfortunate, as such standards can be used as a tool with which to assess the impacts from housing on the health of residents. Evidence-based standards can be used to improve health and reduce health inequalities and, if enshrined in legislation, can ensure that property owners carry out any improvements necessary to promote and protect health and well-being.

A number of factors impact on health from housing. These include the state of repair, the facilities provided, indoor air quality, fire safety and the activities of the occupants.

In the last twenty years or so, an increasing emphasis has been placed on the quality of life of residents and this can be influenced by the aesthetic environment, refuse collection, anti-social behaviour, freedom from crime etc.

Background

It is well understood that poor quality housing leads to poor health and therefore higher costs for government. It follows, therefore, that improving housing conditions will have major health benefits for the community, as well as reducing the burden on health and social services in the long term (BRE 2010).
In Guernsey there are 25,777 dwellings (2010 Housing Bulletin) of which 63% are owner occupied, 8% are in the social rented sector, 26% are the private rented sector and 3% other include staff accommodation and lodging houses.

Whilst the link between housing and health is commonly acknowledged, outside of efforts made to improve the quality of longstanding social housing and to ensure that all new social housing is built to lifetime homes standards, little has been done in Guernsey proactively to address this issue. There exists a poor understanding of extent and prevalence of housing problems, and a belief among the general public that such problems are confined to ‘houses in multiple occupation’ (HMOs). HMO is the collective term used for staff accommodation, lodging houses etc. and accommodation where there are two or more households share bathroom and/or kitchen facilities.

Although the HMO sector is directly linked to health inequity, there are other housing issues in Guernsey that need to be addressed. For example, an elderly homeowner may be asset rich but cash poor, to the extent that they cannot afford to maintain or even heat their home. High energy bills affect occupiers of all ages, particularly tenants renting poorly-insulated properties of single leaf block construction.

Currently there is no statutory standard of fitness for all tenures or provisions for quality of life. In the absence of a standardised inspection model that can be used to assess housing standards against health criteria, there is a reliance on importing concepts from the UK, WHO, EU etc. but these are not embedded in local policy or law. Many private rented properties such as HMOs would be better managed if they were required in law to be registered.

The inspection of housing to assess impacts on health has always been undertaken by Environmental Health Officers, currently based in the Office of Environmental Health and Pollution Regulation (OEHPR).

In Guernsey, the OEHPR receives around 150 complaints a year about poor housing conditions, although only around 35 of those lead to formal interventions with the house owner/landlord.

This section sets out inequalities in housing, the environment and health, and summarises the evidence which indicates areas for future policy development. These areas are: improving the availability and quality of housing; and increasing the safety of the environment in which people live. The section also summarises the benefits which might result from such policies.
Reducing inequalities through action on housing conditions

Shelter is a pre-requisite for health; however, islanders surviving on a low income commonly suffer both from a lack of housing or from poor quality housing. Furthermore, the fear of crime compounds the social exclusion of people living in disadvantaged areas.

The Housing Department accommodates families with children and older people, whilst the Island’s other main provider of social housing, the Guernsey Housing Association (GHA), caters additionally for single people of working age, and couples without children. All social housing, however, is aimed exclusively at low income groups, for the simple reason that Islanders who work in low paid jobs or rely on benefit are most likely to struggle to secure decent accommodation. Furthermore, both the Housing Department and the GHA operate a Review of Tenancy policy whereby tenants who earn above the eligibility thresholds are moved out of social housing to make room for lower earners, i.e. people in greater need of affordable accommodation.

The majority of social housing tenants are not disadvantaged in anything other than the financial sense; and the affordability of their accommodation helps in this regard. But it is true to say that social housing also accommodates a number of families with more complex needs, and this creates the risk of a concentration of ‘problem families’; taken to extremes, it reinforces a sense of separateness and division between affluent Islanders and the less well off.

This inequity in housing—brought about by inequality of income—is an important factor when trying to address improvements health and well-being in Guernsey.

Lack of affordable housing

There is little local data on the health impacts of homelessness on local people. However in the UK, very high mortality rates have been recorded for homeless people, particularly for rough sleepers and hostel users; surveys indicate high levels of health need among the homeless population.

In the UK, 45 per cent of the bed and breakfast population have been found to experience psychological distress, compared to 20 per cent of the general population. Rates of self-reported depression and anxiety are three times higher among those in bed and breakfast accommodation and ten times higher in rough sleepers.

There is also an elevated prevalence of major mental disorders, most notably schizophrenia, among young homeless people, and a high rate of attempted suicide.
Whilst there appear to be few instances of outright homelessness in Guernsey, this issue needs very careful consideration and management. The Youth Housing Project, run by Action for Children and funded by the Housing Department and the Home Department (the latter using funds allocated to the Drug and Alcohol Strategy), offers assistance to young people aged 16 to 25 who are experiencing, or are at risk of, homelessness. The Project manages eight training flats and operates two ‘crash pads’ for young people who need somewhere safe to sleep in an emergency. The Project has close links to HSSD’s St Julian’s House, which offers safe, secure accommodation to adult men and women who would otherwise have nowhere to go.

In addition to their higher risk of mental health problems, surveys in the UK have shown that people who are single and homeless have a higher prevalence of bronchitis, tuberculosis, arthritis, skin diseases, infections, problems related to alcohol and substance misuse, and higher rates of hospital admission. People living in bed and breakfasts and HMOs have high rates of some infections and skin conditions, and children have high rates of accidents, a high-priority public health issue in Guernsey. Living in such conditions creates stressful environments for the parents and impacts on normal child development through lack of space for safe play and exploration. Safe environments for children are a major facet of the Children’s Environmental Health Action Plan, currently in development, which prioritises unintentional injury and asthma. This plan is incorporated within the Statutory Guernsey Children and Young People’s Plan.

Whilst cause and effect are hard to demonstrate, at the very least, homelessness prevents the resolution of associated health problems. For example in the UK: many young people recently made homeless do not have adequate access to health care; and homeless people who are heavy drinkers may have less access to health services for all their needs, including treatment of health problems related to alcohol and substance misuse.

Neighbourhoods and the development of new residential areas may benefit from the principle of planning to promote a mix of housing tenures, housing design, employment status, household composition and age groups. This may avoid the problems of concentration and isolation of those suffering the greatest disadvantages, and the potential overload on services.

Although improvements in quantity and quality of housing are not certain to improve health, it is logical that they should do so. Such benefits would be on a range of health outcomes. Reducing official and unofficial homelessness and social housing waiting lists by taking steps to make private rented accommodation more affordable and of a better quality would meet a basic health need of groups already vulnerable to poverty and ill-health, including families and people with mental health problems.
If improvements are made through community-led developments, this may also enhance social networks, with other potential benefits to health.

**Unintentional Injury and home safety**

The World Health Organisation (WHO) has undertaken many studies into unintentional injury and has concluded that in Europe, action to prevent falls, scalds and poisoning in children would bring about major improvements in population health. In Guernsey, in a housing context, taking steps to prevent falls and scalds should be a priority; housing design and environmental amenity can be a major influence for prevention. Further work is needed to align hospital admission and data gathering with the inspection regimes in houses to achieve the best outcomes and improvements in health.

A single joint approach to monitoring and then taking steps to prevent falls in the home for all age groups should be a major health improvement initiative through referral systems.

**Fire Safety**

Although the local Fire service aims to manage any fire incidents, it is also proactive in fire prevention initiatives such as providing advice, installation of fire alarms. This work would benefit from a joined-up approach with those involved in housing inspection so that resources could be targeted into high risk areas where the need is greatest.

All social housing is fitted with smoke alarms that are inspected regularly.

**Indoor air quality**

Indoor air quality is becoming a focus of attention because concentrations of pollutants in confined spaces can be breathed in and can have a significant impact on respiratory health, such as asthma, bronchitis, emphysema and lung cancer.

Indoor air can be affected by a range of pollutants such as radon gas, gases and particles, such as carbon monoxide and smoke, associated with indoor boilers and fires, smoking tobacco products, mould and fungal growth and pollution from outside accumulating in ‘micro environments’ in buildings caused by poor design. Such pollutants can be concentrated in corners and stairwells, sometimes increasing to unsafe levels. An important intervention by the Ambulance and Rescue service for a collapse in the home should always be to assess whether the patient was near a heating appliance prior to collapse, in case of carbon monoxide poisoning.
During our lives we are subjected to a multiple of exposures in a wide range of indoor and outdoor places. The relationship between multiple exposures and indoor micro environments is worthy of further consideration when assessing housing conditions.

A recent survey for radon, a naturally occurring radioactive gas, in Guernsey revealed that a few properties have levels of radon that warrant immediate action. The research indicates that there is a direct relationship between long-term radon exposure and smoking and so stopping smoking will make a significant difference to the risk of lung cancer. The majority of properties surveyed were well within safe levels. Simple measures such as giving up smoking and having good ventilation can reduce the risks of ill health significantly.

Good ventilation is a sensible public health approach as this will allow good air circulation to prevent the build-up of pollutants and will also reduce condensation which can lead to mould growth. This is often exacerbated by poor heating.

Improved public health advice for occupants on 'healthy lifestyles at home' needs to be taken forward.

RECOMMENDATIONS

**Recommendation 12:** Develop jointly agreed policies that improve the availability of social housing for the less well off within a framework of environmental improvement, planning and design which takes into account social networks, and access to goods and services.

**Recommendation 13:** Jointly agree policies which improve housing provision and access to health care for both officially and unofficially homeless people.

**Recommendation 14:** Jointly agree policies to improve insulation and heating systems in new and existing buildings in order to reduce the impact of fuel poverty and ill health associated with cold and dampness.
**Recommendation 15:** Introduce new housing legislation that will enshrine housing standards that will improve space and amenity to reduce accidents in the home and ensure a minimum standard for all housing in Guernsey.

**Recommendation 16:** Jointly agree initiatives and performance measures that will target resources into the most high risk housing areas to achieve the best health outcomes for the community.

**References**


Commission for Rural Communities – ‘Housing and support needs of older people in rural communities’ – University of York [http://www.york.ac.uk/inst/chp/publications/PDF/olderruralsum.pdf](http://www.york.ac.uk/inst/chp/publications/PDF/olderruralsum.pdf)


INFANT FEEDING

Breastfeeding and Health

Breastfeeding is an unequalled way of providing ideal food for the healthy growth and development of infants; it is also a normal part of the reproductive process with important implications for the health of mothers. Given the documented short and long-term medical and neuro-developmental advantages of breastfeeding, infant nutrition is a public health issue and not only a lifestyle choice (AAP 2012).

Ideally, babies should be exclusively (no solids or liquids besides human milk, other than vitamins and medications) breastfed for the first 6 months of life to give them the best possible growth, development and health (Kramer & Kakuma 2012). After that, to make sure that their nutritional needs are met, infants should receive the correct complementary foods while breastfeeding continues for up to two years of age or beyond. This will ensure that evolving foods requirements are met. Exclusive breastfeeding from birth is possible except for a few medical conditions, and unrestricted exclusive breastfeeding results in ample milk production (WHO 2001).

There are extensive and wide ranging known benefits of breastfeeding for the infant compared to artificial feeding¹ and there are some benefits which are thought to be associated with breastfeeding but require more research to confirm they are better². Exclusive breastfeeding for six months has several advantages over exclusive breastfeeding for three to four months followed by mixed breastfeeding (Kramer and Kakuma 2012).

The reduced risk of various infections occurs because the mother transfers to baby protective proteins (antibodies) in milk. Just a small percentage of babies will require infant formula, because they have specific medical conditions or their mothers have been unable to breastfeed (WHO 2001, RCPCH 2011).

While there is much data to show the benefit of breast-feeding in developing countries, there is less in industrialised countries. In the UK Millennium Cohort Study, by the age of 8 months 1.1% of children had been admitted to hospital with diarrhoea and 3.2% for lower respiratory tract infection. This study showed that half of the hospital admissions from diarrhoeal illness and a quarter of hospital admissions from lower respiratory tract infection could be prevented by exclusive breast-feeding (Quigley et al 2007).

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¹ They include; lower risk of gastro-intestinal infection/diarrhoea; respiratory infections; necrotising enterocolitis and late onset sepsis in preterm babies; urinary tract infections; ear infections; allergic disease (eczema, asthma and wheezing); Type 1 and type 2 diabetes; obesity; childhood leukaemia; and sudden infant death syndrome.
² neurological development; cholesterol levels; and blood pressure.
Women who breastfeed are at lower risk of: breast cancer; ovarian cancer; hip fractures and reduced bone density. Medical contra-indications to breast feeding are rare (AAP 2012). Women who exclusively breastfeed for 6 months have more rapid maternal weight loss after birth, have delayed return of menstrual periods, and have less risk of iron deficiency (Kramer and Kakuma 2012).

The need to increase breast-feeding rates is identified in the Guernsey Children and Young People’s Plan 2011-3. Increasing the initiation rate and duration of breastfeeding can improve health, reduce inequalities and reduce costs through the prevention of health problems (Renfrew et al 2012).

**Breast-feeding Initiation**

In Guernsey, breast-feeding initiation is recorded by midwives on the mother’s clinical record. The percentage of mothers who initiated exclusive breast feeding for their infants increased from 59% to 75% from 1992 to 2011 (Figure 5) and from 66 to 75% from 2008 to 2011 (Figure 6).

**Figure 5** Breastfeeding Initiation 1992–2011

![Breastfeeding Initiation Graph](image)
Figure 6  Feeding initiation type by year for 2008, 2010 and 2011. Source: EUROKING (The denominators are live births with no medical reasons not to breastfeed).

Figure 7  Feeding initiation type by Maternal Age, 2010 and 2011 combined
The overall percentages hide variations with types of mother. Younger mothers, and in particular teenage mothers, are almost twice as likely to artificially feed their babies than older mothers (Figure 7, Table 1). The modal age for mothers not breast-feeding was 25-29 years. Overall, about 150 babies a year in Guernsey do not receive any breast-feeding.

Table 1 Numbers of women who initiated artificial and exclusive breast-feeding by age, 2010-11 combined (Figures are graphically represented in Figure 6).

<table>
<thead>
<tr>
<th>Age group</th>
<th>Artificial</th>
<th>Breast</th>
<th>Total</th>
</tr>
</thead>
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<tr>
<td>15-19</td>
<td>38</td>
<td>34</td>
<td>72</td>
</tr>
<tr>
<td>20-24</td>
<td>61</td>
<td>95</td>
<td>156</td>
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<tr>
<td>25-29</td>
<td>80</td>
<td>221</td>
<td>301</td>
</tr>
<tr>
<td>30-34</td>
<td>61</td>
<td>334</td>
<td>395</td>
</tr>
<tr>
<td>35-39</td>
<td>50</td>
<td>225</td>
<td>275</td>
</tr>
<tr>
<td>40+</td>
<td>9</td>
<td>41</td>
<td>50</td>
</tr>
<tr>
<td>Grand Total</td>
<td>299</td>
<td>950</td>
<td>1249</td>
</tr>
</tbody>
</table>

Figure 8 Breastfeeding Initiation in Guernsey, England, South-West England and London (English statistics source: [http://transparency.dh.gov.uk/2012/02/16/breastfeeding-statistics/](http://transparency.dh.gov.uk/2012/02/16/breastfeeding-statistics/))
NB. English data on breastfeeding initiation are reported by financial, not calendar, years, in contrast to Guernsey. In Figure 3 - Data for the financial year 2008/09 (April 2008 to March 2009) is taken as the nearest approximation of the calendar year 2008, and so on for subsequent periods. No distinction is made between these two categories by the Department of Health (DH), breastfeeding initiation is said to have occurred if a baby received any breast milk at all in its first 48hrs. The DH denominator used for breastfeeding initiation will include all live born babies, whether or not there may be contraindications to breastfeeding (Conrad Ryan, Department of Health, Personal Communication).

Guernsey breastfeeding initiation rates are comparable to those in the South-West of England, and the English average (Dyson et al 2006), but lower than those in London (Figure 8). However, both Guernsey and the UK are near the bottom of the international league tables of babies who have ever been breastfed, and we lag far behind some Scandinavian countries where nearly all babies have ever been breast-fed (OECD 2009).

**Breastfeeding Duration**

Breast-feeding duration is also an important health measure for infants. At the top of the world breast-feeding league table is Rwanda, with 94% of children exclusively breastfed at 4 months and 88% at 6 months. (Our Times - 2008). The UK is bottom of the league table with rates of less than 20% and about 10% for exclusive breast-feeding at 3 and 4 months in 2005 respectively (OECD 2009). This compares with figures of about 60% and 50% in Norway, the European leader.

In Guernsey, health visitors take over the care of infants from midwives, ten days after birth. They complete “*The Infant Feeding Survey*” for all mothers who deliver at the Princess Elizabeth Hospital. Mothers are asked at their eight month baby check to choose one of the following options for breastfeeding duration; none, birth, 1 week, 2 weeks, 6 weeks, 4 months, 6 months, or 9 months.

On study of the data collected between May 2009 and May 2011 only limited results were available about breastfeeding continuation. Data were available for only 68% of the estimated 1,300 infants. For breast-feeding at 6 weeks data was available in only 50% of infants, of which, 61% were recorded as breastfeeding. It is not clear whether those infants where data is not available are more or less likely to breastfeed. There is even less data for breast-feeding at later periods in infancy. With the current survey methods it is not possible to separate babies who are partially breastfed from those who are totally breastfed.

The UK Department of Health has a minimum 85% quality standard for recording breast-feeding at 6-8 weeks, with 95% coverage preferred.
It is, therefore, recommended that in Guernsey data is collected to enable us to compare our breastfeeding duration performance with other jurisdictions, and to enable us to monitor improvement in Guernsey over time.

In addition, it is recommended that the Infant Feeding Survey, carried out by our Health Visitors, should be improved to give us valid statistics for breastfeeding duration. For example we need to know whether an infant is totally or partially breastfed, we need to meet the minimum quality standards of 85% of infants who have whether or not they breastfeed recorded at 6-8 weeks, and we need to improve measurement at later periods too.

**Current Local Initiatives to Improve Breastfeeding**

Princess Elizabeth Hospital has been externally accredited by the UNICEF UK Baby Friendly Initiative since 1999. This initiative contains 10 Steps to Successful Breastfeeding (for maternity units). Initial accreditation as a Baby Friendly Hospital takes place in three stages:

- **Stage 1** of the assessment procedure is designed to ensure that the necessary policies, guidelines, information and mechanisms are in place to allow health care providers to implement the Baby Friendly standards effectively.

- **Stage 2** involves the assessment of staff knowledge and skills.

- **Stage 3** assesses the implementation.

An extract from the most recent PEH report is:

“The Princess Elizabeth Hospital has met virtually all of the criteria for continued Baby Friendly accreditation and the staff are commended for their work to maintain the standards previously established. It was clear to the assessment team that pregnant women and new mothers receive a very high, and in many areas exceptional, standard of care. All mothers interviewed without exception were very pleased with the amount and consistency of support they received both from maternity and neonatal staff.”

In addition, there is a dedicated breastfeeding midwife, and also specific targeted support for teenagers and smokers.

The National Childbirth Trust work with businesses in the community and promote Baby Friendly local establishments in their newsletters.
How We May Improve Breastfeeding Rates

To improve breastfeeding rates we need to understand and increase factors that help mothers' breastfeed and decrease those that hinder. Existing evidence into practice advice from the National Institute of Clinical Excellence identifies some areas where further work is likely to increase breastfeeding rates.

Both the decision of a mother to breastfeed, and her ability to implement her decisions are influenced by many factors, and problems often inter-relate. International factors include; globalisation and marketing of formula feeds by commercial interests; increased work opportunities for women without supportive childcare/feeding facilities; media portraying bottle feeding as norm and as safe; media displaying women's breast as symbols of sexuality; lack of implementation of WHO code on marketing of breast milk substitutes. National and regional factors include; lack of appropriate education/training for professionals; lack of supportive environments outside home and in the workplace; lack of breastfeeding education in schools. Individual factors amenable to change in short-term at micro socio-economic level; attitudes of partner, mother and peer group; social support from partner, family and friends; loss of collective knowledge and experience of breastfeeding leading to a lack of confidence; embarrassment about breastfeeding including perceived acceptability of public feeding both in and outside the home; difficulty of involving others in feeding; perceived inconvenience of breastfeeding and anxiety about total dependence of baby on the mother. Other individual factors amenable to micro change in the short-term may be; illness; perception of insufficient milk; painful breasts and nipples; baby rejects breast or is too tired. (Dyson et al 2006).

The factors adversely affecting the decision to breast feed at a population level are; younger mothers; leaving school at 16 or less; not married; white ethnicity; return to work before 4 months; lower socioeconomic group. The UK has been considered to have the lowest standards for compliance with international standards for support of breastfeeding in the workplace (Dyson et al 2006), and this will affect particularly less affluent women who have to work, and thereby contribute to health inequalities (UNICEF 2012).

There are particularly low rates of breast-feeding in younger mothers in Guernsey (Figure 7).

Three overarching themes arose from focus groups, “moral norms”, “sexuality of the breast”, and “self-esteem”, with concerns relating to breastfeeding in public cutting across all theme (Dyson et al 2006).
In socio-economically deprived teenagers, Dyson found that “moral norms” were the most predictive variable influencing teenage intention to formula feed or breastfeed, in a deprived urban area in England. The likelihood that breastfeeding “will be embarrassing” was the only attitudinal belief rated as significantly important in influencing teenage intention to breastfeed.

We do not have any systematically collected local data on the reasons why some of our mothers choose not to breast-feed or give up feeding. It would helpful if this information were to be collected by midwives and health visitors.

Some comments below from the Parents Panel of the Maternity Services Liaison Committee, and from the DPH meeting mothers at the Guernsey branch of the National Childbirth Trust, give useful insights into some of the local issues;

“I have to say when I had Joe I had one negative experience where I was asked to stop feeding because I was making others feel uncomfortable but I am strong minded and told the person my son had a right to lunch as much as the rest of the people in the place did so if people didn’t like it don’t look”.

“I’ve fed all 4 of my children in Guernsey, I had the odd funny look and talking behind my back but no one actually said anything to me. I couldn’t imagine feeding my babies any other way”.

“I don’t feel like I should cover my breasts either whilst feeding- personally I find it more of a palaver anyway, its not my fault if someone can't view female breasts in a non-sexual way and I think until you have breastfed then you cant really understand how wonderful it really is and what an amazing bond it creates with your child”.

“A friend of mine went to a hotel on Guernsey for the weekend with her husband and baby and was asked to go and feed the baby in the toilets! Disgraceful!”

“I do find it hard feeding in public, I do the sit in the car etc as I feel a lot of people see it as wrong to feed in public. Was at Oatlands play area with my 3 year old and was feeding my then 3 week old with a blanket covering and was getting filthy looks and some woman saying quite loudly how it was wrong to breastfeed as they serve food there (even thought you could not see anything) this really puts me off feeding in public and makes it hard to go out in case the baby needs a feed ‘cos a lot of the time if I feel uncomfy i’ll sit in the car”.

“But I do think it would be helpful to provide one clean simple nursing room type facility somewhere in town (similar to the provision of public toilets) where Mum’s could go if they did wish to have a bit more privacy for whatever reason. Perhaps this would persuade some to carry on feeding rather than potentially giving up if they really did feel genuinely uncomfortable about feeding in public. These types of rooms are commonplace in many shopping malls in the UK now so it’s time Guernsey sought to follow suit”.

“All my children have been small yet thrived. With my third baby I felt I was being checked up upon by the health visitor as my daughter wasn’t following the charts as they hoped.
I desperately wanted to solely breastfeed, they desperately wanted me to formula feed to get her weight up...it really knocked my confidence as a mother and I was told my milk wasn’t good enough. In the end I just wanted the health visitor to leave me alone, I even went out so she wouldn’t be able to come round every week to tell me to formula feed again – it was an awful experience, I didn’t feel listened to and I even worried they may take all my children into care for not following their advice to formula feed – I persisted with breastfeeding with great help from both midwife and the NCT.

“I have never had any negative experiences when out and about”.

“Too many see breasts as sexy rather than practical

“I had to give up breastfeeding as when I return to work there was nowhere for me to express and store my breast milk”.

“My health visitor was really supportive of me breastfeeding and frequently asked how it was all going - I felt I could ask for breastfeeding help from her if needed”.

**Health Visitor Advice**

One theme raised by mothers was variation in health visitor practice. Some health visitors rigidly followed centile charts in baby healthcare books, while others used them as a guide.

**Maternity and Paternity Provisions**

Raising a family is a cherished goal for many working people. Yet pregnancy and maternity are an especially vulnerable time for working women and their families. Expectant and nursing mothers require special protection to prevent harm to their or their infants' health, and they need adequate time to give birth, to recover, and to nurse their children. At the same time, they also require protection to ensure that they will not lose their job simply because of pregnancy or maternity leave. Such protection not only ensures a woman’s equal access to employment, it also ensures the continuation of often vital income which is necessary for the well-being of her entire family. Safeguarding the health of expectant and nursing mothers and protecting them from job discrimination is a precondition for achieving genuine equality of opportunity and treatment for men and women at work and enabling workers to raise families in conditions of security (ILO 2000 and 2012). Guernsey offers a maternity allowance for 18 weeks or a maternity grant. Given exclusive breast-feeding is recommended for 6 months, consideration should be given to how improvements in benefit can improve breast-feeding rates. However, improved benefits come with potential drawbacks to businesses on how to cope with someone on maternity leave, and to women themselves if businesses become less likely to employ women because they may go off on maternity leave.
Guernsey is not compliant with United Nations Convention on the Elimination of All Forms of Discrimination against Women. This was adopted by the United Nations in 1979 and came into force in 1981. This protects women so that they can take maternity leave without loss of former employment, and that they can receive maternity pay.

Improved maternity provisions also contribute to increased social inclusion; improving child and maternal health; helping to reduce child poverty by giving families with newborn children more income security; improving the work-life balance of families; and maximising the workforce by making it easier for women to re-enter employment (SoG 2012).

While many organisations are already making provision for maternity leave, on Guernsey an online survey suggests that there are still a number who would not provide more than 6 weeks leave unless there was compulsion to do so (SoG 2012).

Recently there have been local proposals for 12 weeks for basic maternity leave (SoG 2012). By international comparisons these are modest, for instance Norway introduced 12 weeks of paid maternal leave in 1956, and in 2009 parental leave was extended to either 46 weeks with full pay for 56 weeks with 80% pay. While it is likely that extending maternal paid leave will improve breastfeeding rates, in the current economic climate this may not be affordable. Some countries are exploring the option of paid breastfeeding breaks (Australian Government 2012).

Mothers noted that in Guernsey some had to return to work before they would like to or were ready to because of license or contract issues. Some also noted that as they did not have anywhere suitable to express and store breast milk at their place of work, they had to switch to formula feeding earlier than they had wished.

**Control of Marketing of Infant Substitute Milk Formulas**

Given the problems of marketing of breast milk substitutes, some countries e.g. Papua New Guinea, introduced legislation so that substitutes have to be prescribed by a registered health worker who had to verify it was in the babies interest to have the substitute, and that mother’s knew how to use it (Lambert 1980). While such a measure should be discussed in Guernsey and would benefit infants, this might be seen as a restriction of lifestyle choice and be unpopular.

In 1981 the WHO produced a code for marketing of breast milk substitutes given concern on the detrimental effect of marketing worldwide. The code was adopted
by the 34th World Health Assembly in 1983, and is a voluntary code on composition, labelling and advertising of infant formulae, and substantial aspects of the code have been adopted by European Commission (2006). Currently we do not have any data on how well Guernsey is implementing this code. I recommend an audit of best practice against this code.

Recommendations

Breastfeeding rates in Guernsey are some of the lowest in the world, with consequences for the health of our infants, mothers and individual and States finance. The following actions are:

**Recommendation 17:** Develop a strategy to increase rates of initiation of and continuation of breast feeding, including appointment of a lead health visitor for infant feeding to lead on policy and practice, support community services to obtain UNICEF baby-friendly accreditation, and develop volunteer peer support in early postnatal period with National Childbirth Trust.

**Recommendation 18:** Improve measurement, including introduction of internationally accepted measures of breastfeeding continuation rates, improve Infant Feeding Survey to at least meet the 85% response rate standard, record and monitor mother’s reasons for not starting or stopping breastfeeding, and set breastfeeding initiation and continuation rate targets in the States Strategic Plan.

**Recommendation 19:** Improved maternity leave and maternity benefits to support mothers continuation of breastfeeding.

**Recommendation 20:** Educate children on breast-feeding to ensure they regard it as normal behaviour using a programme such as that developed and used in North-West England, and a media campaign for teenagers.

**Recommendation 21:** Improve community support through improved employment practices to enable mothers at work to express and store breast milk, and provision of community facilities such as a quiet breast-feeding room in St Peter Port.
References


DENTAL and ORAL HEALTH

Diseases of the mouth (oral diseases) may affect the teeth and gums (dental disease), or other tissues and parts of the mouth, and are among the most common diseases in humans. The facial structures (including the mouth and teeth) allow us to speak, smile, kiss, touch, smell, taste, chew, swallow, and socialise. Oral and dental health is integral to general health and should not be considered in isolation. Oral and dental disease can have major impact on well-being and quality of life much wider than might first be thought (Figure 9).

Figure 9: Impacts of Oral Disease
(modified from Dept of Health 2005 based on Department of Human Services, 1999)
The prevention of oral and dental diseases will not only improve health but will prevent some of the individual and States costs associated with treatment and active disease.

This section highlights aspects of the important issue of dental public health, but is not intended to be a comprehensive overview of dental public health on the islands.

**Key Conditions - Effects and Risk Factors**

The most important public health impact of dental conditions are dental decay (caries), periodontal (gum) disease, and oral cancer. Other conditions include oral infectious diseases, trauma from injuries, and erosions. Oral diseases restrict activities in school, at work and at home causing millions of school and work hours to be lost each year the world over. Oral health affects general health by causing considerable pain and suffering and thereby changing what people eat, their speech and their quality of life and well-being.

The strong links between several oral diseases and non-infectious chronic diseases is primarily a result of the common risk factors (Figure 10), for example, severe gum disease is associated with diabetes. A thorough oral examination can detect signs of nutritional deficiencies as well as a number of general diseases including microbial infections, immune disorders, injuries, and oral cancer.

Dental decay or caries is a major preventable health problem in most industrialized countries, affecting 60-90% of schoolchildren and many adults. It is also a most prevalent oral disease in several Asian and Latin-American countries, while it appears to be less common and less severe in most African countries (WHO 2005).

In addition, a complication of dental infection is spread to other parts of the body. For instance, gross swelling associated with dental abscesses if not treated can block the airway. In addition infection can spread to other parts of the body such as heart valves, bone, joints, and brain causing sometimes fatal complications (Bridgman et al 1986).

The frequent and high consumption of sugary foods and drinks is the major cause of dental decay (DH 2005). Other risk factors include ready availability of snacks, challenging social circumstances, low health aspirations, siblings and parents with disease, and infrequent ineffective tooth cleaning (SIGN 2000). Many of these are also risk factors for other chronic diseases (Figure 10).
Tooth decay begins when the outer surface of the tooth is attacked by acid. The acid is produced by bacteria which live on the surfaces of the teeth as a layer called plaque. When food or drink containing sugars enter the mouth, the bacteria within the plaque rapidly convert the sugars into acid. The plaque can hold the acid in contact with the tooth surface for up to 2 hours before it is neutralised by saliva. During the time that the plaque is acidic, some of the calcium and phosphate minerals, of which enamel is largely composed, are dissolved out of the enamel into the plaque. This process is called demineralisation.

Once the damage to the tooth enamel has been done there is limited capacity for it to be repaired through re-mineralisation. If sugars enter the mouth too often the overall loss of mineral from the enamel surface results in a cavity through which bacteria can penetrate and infect the inner structure of the tooth. This is tooth decay and, if left untreated, will gradually destroy the tooth causing pain and often the formation of an abscess (Levine 1976).
Dental erosion is the dissolving of the tooth structure by dietary and gastric acids, which can be caused by acidic drinks for instance popular soft drinks such as Coca Cola, concentrated orange juice, lagers, beers, and wines. It can also be caused by gastric acid in people with bulimia. If a child drinks a glass of Coca-Cola and swills it around the mouth then the acids in the drink will start to dissolve all the teeth, even in a mouth that is otherwise beautifully clean and plaque free. Erosion can cause sensitivity of teeth. Once the tooth is eroded this is irreversible, and dental restoration of eroded teeth is difficult.

Trauma of teeth is also common, particularly during sports at school when teeth may be lost.

**Guernsey Dental Health Statistics and Comparison to Other Countries**

Surveys are carried out to study the distribution and patterns of diseases and their causes or influences in well-defined populations. Without these studies it is not possible to plan and target services effectively. They take significant resources to undertake appropriately.

The World Health Organisation European Region (1999), of which Guernsey is a part set the following targets to be achieved by 2020:

- at least 80% of children aged 6 years should be free of caries (decay).
- 12-year-old children should have on average no more than 1.5 decayed, missing or filled teeth.

**5 Year Old Children**

Guernsey’s 5 year-old child population is the only age group which has been surveyed regularly, with surveys undertaken eight times since 1984 (Figures 11 and 12). The main measures of dental public health used are the mean number of decayed, missing and filled teeth, and the percentage of children who are disease free.

However, Guernsey does appear to have met the WHO European Regional target of 80% of disease free children early, although we measure children one year earlier than in those monitored by WHO, and it is likely that the dental health of our 6 year old children is a little worse than our 5 year olds. It is also known that population dental surveys underestimate disease as they only pick up teeth with obvious cavities. It should also be noted that in 2006, the children’s dental service changed from a universal to a targeted service, and the children surveyed in 2011 were the first generation of 5 year olds affected by this change.
Figure 11  Mean decayed (d), missing (m), filled (f) teeth in five year old children in all Guernsey schools combined by year of survey

Figure 12  Mean percentage of five year old children who were decay free (no decayed, missing or filled teeth) or who had active decay in all Guernsey schools combined, by year of survey
The average score in 2011 for decayed, missing and filled teeth was 0.6, an improvement from the worst population dental health figures of about 1.5 in 1999, but slightly up from 2008. There are caveats with the data as noted above.

Guernsey children have better dental health compared to the most recent figures from England (Table 2). These figures also show that while a minority of 5 year olds have active decay, those that do, have an average of about three teeth with cavities.

Table 2 For 5 year old children Guernsey 2008 compared to England 2007/8, mean decayed, missing, filled teeth score (dmft), percentage children decay free, percentage children with experience of dental decay and mean dmft for children who have experience of disease.

<table>
<thead>
<tr>
<th></th>
<th>Percentage children decay-free</th>
<th>Percentage with experience of dental decay</th>
<th>Mean dmft</th>
<th>Mean dmft for those who have experience of disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guernsey 2008</td>
<td>80.4</td>
<td>19.6</td>
<td>0.56</td>
<td>2.79</td>
</tr>
<tr>
<td>England 2007/8</td>
<td>69.1</td>
<td>30.9</td>
<td>1.11</td>
<td>3.45</td>
</tr>
</tbody>
</table>

The overall Guernsey figures hide marked variations between school catchments (Figures 13 and 14, Table 3). In 2002, two schools had more than 50% of children with active decay compared to about 25% at another school. Since then there have been recorded improvements at all schools (Figures 13 and 14) although there are caveats with the comparability of results between survey years (see Appendix 1).
Table 3  Dental Health Survey of 5 Year Old Children. Mean dmft by school\textsuperscript{1,2}, 2008 and 2011

\begin{tabular}{|c|c|c|c|c|}
\hline
School & 2008 & 2011 & N & 95\% CI \\
\hline
h & 0.42 & 1.41 & 17 & 0.01-2.81 \\
m & 0.66 & 1.40 & 43 & 0.70-2.09 \\
n & 0.69 & 1.05 & 38 & 0.42-1.69 \\
j & 0.50 & 0.72 & 39 & 0.06-1.37 \\
g & 0.41 & 0.67 & 15 & 0.00-2.10 \\
q & 0.97 & 0.59 & 37 & 0.08-1.11 \\
e & 0.32 & 0.57 & 21 & 0.00-1.22 \\
o & 0.77 & 0.56 & 41 & 0.05-1.08 \\
l & 0.60 & 0.50 & 74 & 0.22-0.78 \\
f & 0.37 & 0.44 & 72 & 0.09-0.80 \\
c & 0.18 & 0.35 & 23 & 0.00-0.98 \\
d & 0.31 & 0.32 & 31 & 0.03-0.61 \\
i & 0.45 & 0.29 & 38 & 0.06-0.52 \\
k & 0.56 & 0.26 & 43 & 0.00-0.56 \\
b & 0.16 & 0.07 & 15 & 0.00-0.21 \\
a & 0.00 & 0.00 & 5 & 0.00-0.00 \\

All schools & 0.56 & 0.60 & 552 & 0.46-0.73 \\
\hline
\end{tabular}

\textsuperscript{1}Sorted by 2011 dmft values, arranged highest to lowest.
\textsuperscript{2}School codes are consistent with those published in the Health Profile for Guernsey and Alderney 2008

It should be noted that the numbers of children in each school are relatively small so that one or two children with decay can make a disproportionate difference to the mean dmft of any individual school in any year.

In the UK, among 5 year olds, the probability of having obvious decay in the primary (baby) teeth was about 50 per cent higher in the lowest social group than in the highest. While we do not measure social class in Guernsey in the same way as the UK, our school catchments used as a proxy for relative affluence, indicate that we have a similar social gradient in dental public health in Guernsey as in the UK (Table 3), i.e. we have significant dental health inequalities.
12 Year Old Children

Guernsey’s performance against the WHO target for the population health of 12 year old children of on average no more than 1.5 decayed, missing or filled teeth by 2020, cannot be assessed as there has not been a local survey in this age group. Although we have some local screening data, this is not comparable.

Results of UK studies may provide an indication of dental health in a fairly similar population, although there are wide regional variations in England. Further in the UK all children have access to NHS dental care that is free at the point of delivery whereas this is not the case in Guernsey. Comparison of 12 year old children in England has shown a dramatic improvement over time from 5 to less than 1 affected tooth per child on average between 1973 and 2003, such that England had the best oral health in Europe (DoH 2005).
**Dental Screening**

The Children’s Dental Service also undertakes a screening programme the purpose of which is to identify any children who may be suffering from an abnormal oral condition. The target school years are Reception, Year 5 and Year 8.

The 2012 screening figures from Reception and Year 5 class children showed that 23% and 22% respectively were referred for more detailed examinations due to possible active decay.

The only information we have on 12 year old children is from screening. In a 2011 screening by HSSD’s children’s dental service, 37% of pupils screened were found to have untreated dental conditions, compared to 33% in a similar 2009 survey. Conditions included decay, orthodontic and periodontal conditions, and trauma. The response rates in both years were low, 46% in 2011 and 44% in 2009. There were large variations in response rates at different schools from 28% to 94%, with the less affluent/academic schools having the lowest response rates. Screenings are not calibrated, so there are potentially significant biases in using data for monitoring trends between years, or in comparing schools.

**Risk Factors**

We currently do not collect data on the amount and frequency of consumption of sugars, one of the key risk factors for dental decay and other chronic disease.

**Adults**

There have been no surveys of adult dental public health in Guernsey.

Results of UK studies may provide an indication of population dental health in Guernsey. The Adult Dental Health Survey for England and Wales 2009 was the fifth in a series of national dental surveys that have been carried out every ten years since 1968. The survey showed that major improvements over time were evident in all age groups up to age 45 years, but that dental health varied with social class. Ninety-four percent had at least one natural tooth; the mean number of teeth was 26, but this varied hugely with age. More than half of those aged 85 years and over had some natural teeth. However, only 10% of adults were judged to have excellent oral health and only 17% had very healthy periodontal (gum) tissues. Thirty-one percent had obvious tooth decay. In 2009, 37% of dentate adults had artificial crowns, with over half the population aged 45-74 with crowns.
In Guernsey, there is anecdotal evidence of inequalities in both dental health and access to treatment. For example, it is generally considered that wealthy adults, and adults receiving supplementary benefit who have their dental care paid for by the Social Security Department (SSD), can receive treatment that those on an average income may not be able to afford. For example, a person on benefit may be able to have a tooth preserved and restored through a root canal therapy and the provision of a crown. This is not automatically the case and payment for the treatment will depend on the position of the tooth, the individual's general dental health and other considerations. But for low income people not on benefit, such treatment is very likely to be beyond their means. This leaves no real option other than having the tooth extracted. Tooth loss can lead to loss of function (molars) or loss of appearance (mainly front teeth) or both. Replacement teeth, either with a denture or implants may be more expensive compared with early intervention to save teeth.

Needs assessments across England have shown that there is a large amount of unmet need in vulnerable older adults, especially in care homes (S White, personal communication). Key challenges for providing dental services will be dealing with the legacy of previous treatment and complex restorative needs, in particular in vulnerable older adults with problems such as dementia (Steele 2009). Health promotion within care homes is really important in the reduction of the number of problems and costs.

Data from our private dental surgeries has not yet been available to assess population dental health in Guernsey and given an indication of dental health need.

**Improving Population Dental Health and Reducing Health Inequalities**

*Health Promotion Programmes*

Guernsey's apparent improvement in dental health for 5-year-olds in the past decade may have been, in part, down to dental health promotion programmes put into place once it was recognised that population dental health was deteriorating. Analysing the results by school showed that in 2002 there were stark variations in disease experience between schools.

For example, more than twice as many children had dental decay in the dentally least healthy schools compared with the healthiest. Following the implementation of specific, evidence-based, dental health interventions, not only did the overall level of dental health improve, but also the inequalities evident between schools were lessened.
Following the 2002 survey the focus of preventative programmes locally was directed to those schools with the poorest dental health. The catchment areas for these schools received targeted dental visits from the health visiting team. These took place when the child was 6 months, 18 months and, initially, 30 months old.

Then, at age 3½ years the child (with a parent) would be seen by a dentist at the developmental check. These occasions provided opportunities for specific dental advice together with a free sample for the parent (toothbrushes, toothpaste and feeding cups). Similar interventions now form part of the Childsmile programme in Scotland.

Key messages in Guernsey’s Health Promotion programme are that the consumption of sugary foods should be restricted to mealtimes (a maximum of four times a day). In other words, the occasional sweet treat or sugary drink is fine, if it is eaten with other food. Local health policies incorporate oral health using the common risk factor approach for health promotion (Figure 10).

The “Future 2020 Vision of the Health and Social Services System” urges a focus on prevention of disease, promotion of self-care and independence. The Children’s Dental Service has, within existing resources, been increasing its recorded preventative work to individual patients, with the number recorded rising from 390 in 2010 to 1,201 in 2011. These contacts may be within an existing appointment or a standalone appointment. They involve advice on tooth brushing, fluoride toothpaste, dietary advice and regular dental attendance. Preventative fluoride varnish applications rose from 28 in 2010 to 412 in 2011. Preventative interventions need to be sustained, as it is likely that increased preventative work in children will prevent problems and save public and private costs of restorative treatment in the medium and long term.

**Fluoride Options**

Fluoride is a natural mineral that helps to prevent tooth decay. It works through three main mechanisms; after swallowing, up until the age the tooth erupts the fluoride can be incorporated into the crystal structure through its systemic effect by altering the structure of the developing enamel making it more resistant to acid attack; by local action, helps remineralise the tooth and harden the enamel quality; and reduces the ability of the plaque bacteria to produce acid.

Fluoride toothpaste is a very common intervention to prevent active decay. The higher the concentration of fluoride in toothpaste the higher chance of preventing active decay, but there are maximum recommended levels. Concentrations should be in line with the Evidence Based Preventive Toolkit produced by BASCD (Department of Health 2009). Both children and adults are encouraged to use fluoride toothpaste.
Fluoride varnish is effective in the prevention of decay in primary and permanent teeth. It is advised that it should be applied to teeth at least twice-yearly for preschool children assessed at being at increased risk of dental decay (SIGN 2000, 2005). The varnish sets quickly and has for some a pleasant taste and a fruity smell. It slows down the development of decay by stopping demineralisation. It is easy and quick to apply. However, application of fluoride varnish is carried out by health professionals so is not a cheap option (Quinonez 2006). It is something Guernsey would need to consider very carefully before introducing more widely. If public funds are available for this treatment, they should be targeted initially to the high risk population where it may prevent more than half of the tooth decay. In private practice it would help prevention dental caries if dentists applied this intervention more widely.

Fluoridation of the public water supply as an option is considered effective at improving population dental health and reducing dental health inequalities, however it has been controversial. It has been concluded that to be economic water fluoridation should be targeted at those districts with mean decayed, missing and filled teeth at age 5 years greater than 2.0, and with water supply schemes covering around 200,000 residents (Birch 1990). On this basis fluoridation of the public water supply in Guernsey would not be an option.

**Children’s Access to Services**

In January 2006 the Children’s Dental Service ceased to be one of open access and only provides care to children fulfilling a strict criteria for referral. As other children must obtain their care in the private sector this has contributed to inequalities in access to dental healthcare.

Some families beyond the higher income thresholds for Supplementary Benefit (SB) or the means tested Medical Expenses Assistance Scheme for families on low incomes who do not qualify for Supplementary Benefit, may not be able to afford the fees for dental check-ups for their children, or for restorative care when it is required.

The issue of working poor families was recognised in the Children and Young People’s Plan 2011-2013. It is likely that some children who need treatment do not have access to either the public or private service, because of a “poverty trap”.

There is also anecdotal evidence that some parents are not taking children for regular check-ups anticipating that, when their child’s dental health deteriorates, they will be offered free care and those who do, may have to delay treatment following the check-up until such time as they feel they can afford it.
The reactive nature of the Children’s Dental Service, (between 2006 and 2011) dealing with decay once it has occurred, rather than having a focus on prevention, gives the wrong message to families in Guernsey.

**Adult Access to Services**
As noted above, we have little data on the use of dental services by adults.

However, dentists and Social Security Department Staff have advised anecdotally that some local residents, who have an income above a level when they are eligible for benefits, cannot afford standard dental restorative treatment such as crowns for lost teeth, and therefore undergo unnecessary extractions. In contrast the better off can afford such treatment, and those on supplementary benefit have the treatment paid for. While the situation may not be as simple as this in all cases, because some people who could afford treatment may not opt for it, it seems unfair that in the twenty-first century some local residents are denied access to standard restorative dental treatment because of affordability.

Given poor dental health is more likely in less affluent members of society, then these members of our society have the double health inequality of worse dental health and a lack of access to basic restorative treatment.

**Health and Care Professionals**
It is important that all health and social care professionals are able to give evidence based and consistent messages on common risk factors, which should include key oral health specific messages such as healthy weaning through eating of good meals, avoidance of grazing, a maximum of four sugar intakes a day, tooth-brushing techniques and use of fluoride toothpaste, and location of dentists and importance of check-ups.

In addition, it is important that pharmacists should offer advice to customers on toothbrushes, fluoride and promote the use of sugar-free medicine. Prescribers should prescribe, wherever possible, sugar-free medicines, and pharmacists should promote their use.

It is also important to ensure that all nurseries and children’s centres and schools have healthy eating/drinking policies e.g. reduce sugary snacks, drinks between meals – water or milk; fruit juice should be taken only as part of a meal.

**Corporate Power and Social Responsibility**
Corporate public bodies also need to take responsibility for promoting healthy options. Several Government Departments and department funded bodies market unhealthy sugary foods that will impact not only on oral health but wider health.
There is an opportunity for Government to take practical steps to counteract the current perception that high-sugar foods are a necessary component of a normal diet. For example, public buildings could ensure that all vending machines have only healthy options.

The power of corporations is vast. Unfortunately even the recent London Olympic Games has been strongly influenced, with top sponsors such as Coca-Cola, McDonald’s, Cadbury’s, (Daube 2012) likely to leave legacy of junk food promotion in association with sporting excellence and the Olympic ideals. On island there is limited evidence of corporations such as supermarkets promoting healthy lifestyles, but tremendous potential for them to do more.

The marketing campaigns of multinational corporations are harming our physical, mental and collective wellbeing (Hastings 2012). Evocative promotion, widespread distribution, perpetual new product development and seductive pricing strategies are used to encourage unhealthy consumption.

The consequence has been the inevitable escalation of lifestyle diseases. The problem with corporations is that the customer frequently comes second to needs of the shareholder.

An example of the exploitation of children for profit is given, for example, in one leading marketing text book (Foxall and Goldsmith 1994), who advise that children are important to marketers for three key reasons; they present a large market in themselves because they have their own money to spend; they influence their parents’ selection of products and brands; they will grow up to be consumers of everything; hence marketers need to start building up their brand consciousness and loyalty as early as possible.

Commercial organisations can improve oral health through promoting and producing sugar-free food and drinks, and to enable the public to make informed choices through clearer labelling.

Popular soft drinks such as Coca-Cola, energy and sports drinks can also damage the enamel of teeth because of their acidity. They erode or thin out the enamel of the teeth, leaving them more susceptible to decay and sensitivity.

**Individual Advice**

Individuals can improve their own and their families dental health by not eating sugary foods between meals, and drinking tap water and milk rather than sugary drinks during the day. Not only will drinking tap water improve dental health, but it will save money and help the environment through reduction of the transport of soft drink and the water from plastic bottles.
To prevent dental erosions and protect teeth, acidic drinks should be avoided. If they are drunk then their use should be minimised and the mouth rinsed with tap water immediately afterwards, to dilute the acid. Tooth brushing immediately after drinking acidic drinks is not advised as this could spread around the acid.

**Fiscal Measures to Improve Dental Health**

The main cause of the commonest disease, active decay, is down to the frequency of consumption of sugary foods and drinks, and “junk food”. As noted above much of this junk food consumption is stimulated by clever marketeers working for multi-national companies. As well as dental disease these products add significantly to obesity levels currently seen.

Taxes on tobacco have been an important method to control consumption as well as raising money for Governments. Therefore there is a growing depth of opinion that taxation should also be used as one means to control sugary drinks. “Adam Smith, the father of modern economics, anticipated a policy linking tobacco to sugar sweetened drinks without even knowing it:

“Sugar, rum and tobacco are commodities which are nowhere necessities of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.” (Kelly et al 2009)

“Both obesity and tobacco use are major risk factors for chronic disease and premature death, both generate significant health care costs, both involve aggressive marketing campaigns to consumers by industries that reap significant financial rewards, both are disproportionately represented among lower socioeconomic groups, both carry a social stigma, and both are difficult to treat clinically.” (Englehard 2009).

Taxes on soft drinks have been around for many years (Public Policy Advocacy 2009). A sugar-sweetened drink tax would be aimed at changing the price of unhealthy, energy-dense drinks in an effort to shift consumption patterns toward a healthier diet. The tax should discourage consumption of sugar-sweetened drinks, and promote consumption of healthier beverages, such as water and low-fat milk. Arkansas imposes a tax on all distributors, wholesalers, and manufacturers of soft drinks (Public Policy Advocacy 2009). Taxes on sugar-sweetened drinks are being seriously considered in cities in California (Reuters 2012), with the dual purpose of improving both population health and public financial health. Taxes on sugar-sweetened drinks could work in Guernsey, raising income that could be used for preventative programmes, thereby achieving a double yield on the measure.
Regulatory measures
In conjunction with fiscal measures, consideration should be given to evidence-based and reasonable regulatory measures to protect children and adults such as proper labelling on sugary and acidic drinks ("diet drinks are still acidic and a problem") to advise they are only recommended with meals, and advertising that achieves the same.

Trauma
If a tooth is knocked out (avulsion) it should be put straight back in, or put in milk and a visit to the dentist made as soon as possible. Preventative measures are also important and gum shields should be used in sports where there is a risk of tooth loss. Every school and sports club should have first aid policy on tooth loss.

Further Work in Dental Public Health
This section highlights aspects of the important issue of dental and oral public health, but is not intended to be a comprehensive overview of the speciality.

Aspects not covered in this MoH Report are adults and children with special needs, orthodontics (dental and skeletal anomalies), and dental public health in Alderney. There has also been a recent review of the Children’s Dental Services, the outcome of which is awaited.

Dental and oral health are already being considered as a future workstream within the States 2020 Health Strategy. It would be helpful if a comprehensive needs assessment was undertaken building on Guernsey links with the dental public health specialist service in the Southern Region of the NHS

<table>
<thead>
<tr>
<th>Recommendation 22:</th>
<th>A dental and oral health needs assessment is carried out, from which an oral and dental public health improvement strategy is developed and implemented.</th>
</tr>
</thead>
</table>

<p>| Recommendation 23: | Improve knowledge of local dental public health epidemiology, with continuation of periodic surveys of five year olds, surveys of twelve year children to monitor progress against WHO target, and use of local Guernsey Dental Association practice data to examine access to care, barriers to care, adult dental health including those with disabilities, and dental public health inequalities. |</p>
<table>
<thead>
<tr>
<th>Recommendation 24:</th>
<th>Develop policies and protocols for dental health in children’s services such as nurseries, nursing and residential homes, and in the public sector such as ensuring public vending machines also provide healthy options, and in local sports association and clubs who should have policies of not promoting acidic energy or sports drinks.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommendation 25:</td>
<td>Further develop preventative policies and programmes using the common risk factor approach, including targetted preventative work for higher risk early years children, and provision of evidence-based interventions in schools such as the Brushing for Life programme.</td>
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<tr>
<td>Recommendation 26:</td>
<td>Counteract dental health inequalities, with children and adults with equal need having equal access to preventative and restorative interventions.</td>
</tr>
<tr>
<td>Recommendation 27:</td>
<td>The consumption of acidic drinks such as popular soft drinks, and energy drinks, etc, should only be drunk with meals to prevent erosion of teeth. In between meals tap water or milk should be consumed.</td>
</tr>
<tr>
<td>Recommendation 28:</td>
<td>Corporate organisations show increased responsibility and use their power to promote healthy lifestyles and products to our citizens.</td>
</tr>
<tr>
<td>Recommendation 29:</td>
<td>SoG to consider policy options of taxation of sugar sweetened drinks to reduce consumption, provide funds for prevention and increased tax revenues, and to consider increased regulation of marketing of such drinks</td>
</tr>
</tbody>
</table>

References
Birch S (1990) The relative cost effectiveness of water fluoridation across communities analysis of variations according to underlying caries level. Community Dental Health, 7, 3-10.


David Mortimer retired from the States Analyst Laboratory in May 2011, after a long and distinguished service for the States of Guernsey. David joined the laboratory in 1979 when it was part of the States Water Board situated under the dam in St Saviours. In 1986, responsibility for the laboratory was transferred to the Board of Health and was re-located to the Old Girls Grammar School. The laboratory then moved to purpose built accommodation at its current site in Longue Rue, St Martins, in 2005.

At St Saviours, apart from a gas chromatograph used for pesticide analysis, equipment was very simple and computers were not available and some measures had to be calculated from graphical output with a ruler. This began the process of making test tube based tests redundant. The laboratory now has an auto-analyser system based on what is used in pathology laboratories using very small volumes of sample and reagents. It is fully automatic with the operator just needing to load samples and reagents, and it performs analysis more quickly, accurately and precisely than a manual analysis, generates very little waste (and doesn't get tired so it can work all night!)

The same evolution has occurred in microbiology, particularly for coliforms and E-coli moving from multiple tube labour intensive test tube methods through membrane filtration methods through to the present systems, which uses the demonstration of the presence of specific enzymes to identify these organisms, although older methods are still used for other organisms.

From 1997 under David’s leadership, the laboratory has introduced a comprehensive quality management system culminating in accreditation by the UK Accreditation Service (UKAS) as operating to the requirements of ISO 17025. Because of this, the laboratory is as confident as it can be that it produces results that are “correct”. The laboratory dedicates 20% of its effort to quality control/assurance and is the only large laboratory accredited by UKAS in the Channel Islands.

During the past few years water quality analyses for Guernsey Water has assumed greater and greater importance as the laboratory assists Guernsey Water in meeting the challenges associated with the implementation of new European and UK based quality standards.
The police and customs side of laboratory work has also changed significantly as the range of drugs being abused has changed. David reflected earlier in his career that he saw cannabis, cocaine, amphetamine with some heroin and barbiturates, the last of which are rarely seen. Ecstasy also appeared but until recently little else was seen. Recently, the so called emerging drugs of concern have exploded onto the scene and brought huge analytical headaches with significant changes for legislation.
OTHER PUBLIC HEALTH HIGHLIGHTS 2011

A very wide range of services and activities influence the health of the public in Alderney and Guernsey.

However, a range of public health services are either directly managed or commissioned through the public health directorate. Some brief highlights of these unit’s achievements and future developments and challenges are included below.

**Clinical Coding Unit**

The Unit operates a system of coding of clinical information from hospital admissions. This enables later analysis. The entire exercise is very important for health needs assessment and in helping clinicians and managers maintain and improve the quality of their services.

**Achievements:**

1. Coded just under 15,000 hospital episodes
2. Absorption of bowel cancer screening coding
3. Resolution of errors associated with new clinical information system

**Future developments and challenges:**

1. International Classification of Diseases Version 11 to be rolled out in 2012.
2. Planning for staff retirements.

**Epidemiology/Public Health Intelligence**

Epidemiology and public health statistical analysis is the cornerstone of public health research. This is a key service to help maintain health, control diseases and as a foundation for health needs assessment.

**Achievements:**

1. More efficient and effective processes have been introduced which enable the electronic transfer of information registered about a deceased person, from both the Alderney and Guernsey Greffe, for the production of the islands’ mortality statistics.
2. A joint audit of death coding with the Office of National Statistics in England, has led to outsourcing of death coding. This will improve both the quality and efficiency of coding. Collaboration with Jersey Public Health Directorate, led to Jersey adopting a similar process to Guernsey. Changes will provide greater assurance that comparisons between Guernsey, Jersey and England’s death statistics are valid.

3. In collaboration with the Clinical Psychology Service, the publication of the first Guernsey Emotional Wellbeing Survey 2010 was a landmark study for the island. This survey provides baseline data for the States to monitor future population well-being and mental health.

4. Joint research with the Chest and Heart Unit on their unique dataset, led to production of a paper on secular trends in Body Mass Index and Smoking Status of First-Time Visitors to Guernsey Chest and Heart, 1974-2010. This work highlighted the significant decrease in smoking prevalence, and increase in obesity prevalence over this period.

5. Improved processes of reporting of cancer data to South West Cancer Registry will result in improved comparability of local data with Jersey and the mainland.

Future Developments:

1. Review of abortion statistics and reporting
2. Joint work with Education Department on Young People’s Survey
3. Development of 2013 Adult Lifestyle Survey
4. Supporting analysis for revision of smoking strategy
5. Joint study with Environmental Health, Infection Prevention and Control Unit, England and Jersey on the apparently relatively high rate of Campylobacter infections reported in the Channel Islands (most frequently reported infection to Medical Officer of Health)

Infection Prevention and Control Unit

There has been a steady increase in the number of bacteria which can cause infections which are resistant to multiple antibiotics, and in particular those that are able to inactivate most penicillin and cephalosporin antibiotics, the mainstay of antibiotic therapy. This is a global challenge which is reflected locally.
Each year in the European Union alone, over 25 000 people die from infections caused by antibiotic-resistant bacteria (WHO 2011). Extensive use of antibiotics in rearing livestock and fish has been a major cause of this resistance (WHO 2011).

Infection prevention and control may often be taken for granted, but it remains a vital service in maintaining the well-being of local people. Good infection control depends on many elements, including the professionalism of all health care staff who keep up to date with and follow policy and procedures, members of the public and patients following advice, and environmental health and veterinary controls in the community.

Achievements:

1. Surveillance of Methicillin resistant Staphylococcus aureus (MRSA) infections and colonisations, Clostridium difficile cases in both hospital and the community, Caesarean section surgical site infections, flu-like illness attending GPs, and diseases statutorily notified to the Medical Officer of Health.

2. No cases of MRSA bacteraemia were recorded in 2011, and there has been a steady reduction year on year of MRSA colonisations from 41 in 2005 to 9 in 2011. Over this period MRSA screening has been extended from pre-operative orthopaedic screening, to pre-operative other surgical screening, to all patients who have been in hospital within the previous six months, to all known MRSA patient with negative status, to all renal patients on a three-monthly basis, and then to all long term mental health and elderly care ward patients on a three-monthly basis.

3. Completion of Caesarean Section surgical site infection surveillance for the 180 sections performed in 2011. In 6% of cases (11) an infection was recorded, all post-discharge. Infection was associated with a higher Body Mass Index. This work will provide a baseline for future surveillance.

4. No outbreaks of MRSA or Clostridium difficile were recorded in 2011. Eight outbreaks of Norovirus were managed, 3 in HSSD premises and 5 in residential or nursing homes.

5. Educational sessions for healthcare staff remain a key activity. Over 1,000 HSSD staff were trained, and in addition, training was given to Nursing and Residential Homes, and St John’s Ambulance and Rescue staff.
6. In addition the extensive infection control audits undertaken in HSSD premises, over the last four years, Nursing and Residential Home infection Prevention and Control audits have been undertaken every two years, and Essence of Care standards introduced.

Future Developments:

1. Joint work between the Infection Control Unit and local dentists.

2. Introduction of high impact intervention care of urinary catheters remains outstanding.

3. Introduction of new infection control audit tool, following its recent publication in the UK.

4. Increase compliance with hand-washing audits, and Modern Matron annual reports

5. Improvement of update of staff flu vaccinations (in collaboration with occupational health)

| Recommendation 30 | The Guernsey Dental Association to produce an infection control policy within a wider clinical governance policy. This policy should include internal and external assurances that infection control standards have been met. The Infection Control Unit to provide support, guidance and external assurance to the process. |

Sexual Health Unit

The unit provides a range of diagnostic, treatment and preventative services for sexually transmitted infections, HIV and hepatitis.

Achievements:

1. The unit meets a wide range of service quality standards, including in 2011 an uptake of 85% HIV testing in patients attending for a first sexually transmitted infection screen, up from 48% in 2008.

2. Absorption of an increase in hepatitis C attendances from 100 to 300 between 2009 and 2011, and of hepatitis B attendances from 10 to 80 during same period.
3. Meeting a range of national and local standards for the HIV and other services.

4. Continuing to work with English Centres of Excellence in HIV and hepatitis.

5. Provision of HIV study day for all clinical staff

Future Developments:

1. Progress is ongoing to work towards the establishment of a Guernsey Chlamydia Screening programme following the recommendation in the 112th MoH report. It is estimated that 5-10% of sexually active women and men between 20 and 24 may be infected. In many cases there are no symptoms. Complications include pelvic inflammatory disease which can lead to miscarriage, ectopic pregnancy and infertility, and in men to inflammation of the testes. The evidence is this would be an “invest to save” programme, i.e. the costs of the programme will be outweighed by future savings in health problems prevented.

2. The majority of services users with newly diagnosed hepatitis C in Guernsey acquire their infection through injecting drug use. There is some evidence that transmission is not occurring through needle-sharing but through other aspects of the “works” e.g. sharing filters and spoons. Further research is recommended to identify the mode of infection to enable control of on-island transmission.

3. Early diagnosis of HIV is associated with a much greater chance of a good outcome. Late diagnosis is still a problem on-island. An aim is to reduce late diagnosis. To do so it is important to continue to reduce stigma associated with HIV, and to encourage testing when appropriate.

Clinical Audit and Quality

Achievements:

1. HSSD Board approved a clinical and social care audit strategy.

2. Participation in National Audit of Falls and Bone Health.

3. Participation in National Hip Fracture database. Princess Elizabeth Hospital ranked near the top on a number of criteria, which reflected well on the care delivered to patients with this common problem.
4. Ongoing participation in in-hospital cardiac arrest and medical emergency team calls indicated that local responses exceeded standards.

5. In 2011, 17 clinical audit projects formally registered.


7. An audit of deep venous thrombosis led to less ultrasound scans, reduced costs and improved patient experience by a reduction in visits to the radiology department.

**Future developments and challenges:**

1. Audit is time-consuming, and with resource constraints and clinical priorities, many clinicians struggle to find time to allocate to data collection and entry.

2. The audit strategy mandates that where possible Guernsey participates in the National Clinical Audit and Patient Outcomes Programme in the UK, to enable us to have comparative data. In the future it is likely that subscriptions will be required to cover the cost of participation.

3. A challenge for HSSD is to undertake valid baseline assessments about compliance and non-compliance with NICE guidance.

4. There is a need to improve the accessibility and user-friendliness of HSSD’s policy software, “Poliplus”

**Patient Safety/Clinical Risk Unit**

The Patient Safety and Clinical Risk Unit aim to help health and social care providers identify, record, and mitigate risks. Where appropriate the unit will carry out investigations of incidents at arms-length from providers.

**Achievements:**

1. The number of incidents reported was 2358, down 2% from 2011. It is important that staff report incidents, as these are important to identify and mitigate risks to safety.

2. Slips and falls remain by far the largest incident group with 986 reported in 2011, down 3% on 2010. Seven new falls beds were purchased in 2011, and further actions are planned (see below).
3. There have been several serious untoward incidents investigated, lessons from which have been used, where appropriate to increase safety further.

4. As a consequence of experience of investigations, a new Integrated Risk Management Policy has been produced and adopted.

5. Introduction of the World Health Organisation Safe Surgery Checklist, and other measures to increase safety in the operating theatre.

6. Production of risk data on reporting of information for use in departments, and training of several hundred staff on risk.

_Future developments and challenges_

1. Participation in National Falls Audit.

2. New Falls policy to be developed and released aimed to reduce falls.


4. Measure safety culture, as one factor for potential improvement.

5. Increase in patient and service user involvement in feedback to services offered by HSSD

**Health Promotion Unit**

_Achievements:_

1. Implementation of Phase 1 of States Obesity Strategy, including the appointment of a new specialist school nurse for weight management, a community dietician and recruiting 8 new Health Trainers.

2. Appointment of replacement HSSD/Education jointly funded Personal, Social and Health Education Advisory Teacher and training programme for all of the schools PSHE co-ordinators.

3. Support of St Sampson Infant School and Notre Dame Primary School to achieve National Healthy School Standard.

4. Part-time Quiltine advisor appointed to work with hospital staff and schools.

5. Development of materials to support successful bowel screening pilot.
6. Support of pilot child measurement study in two local schools, measuring over 200 children.

7. Development of policy for smoke free grounds for HSSD

8. Over 200 people had their blood pressure and cholesterol checked on Healthy Hearts day event.

9. Staffed HSSD’s 2020 Vision involving stands at the North Show, Healthy Hearts Day, Guernsey Mum’s event and Market Square, encouraging members of the public to have their say on the Strategy’s principles.

**Future Developments and Challenges**

1. Supporting smoke-free prison.

2. Contribute to development of States 2013 Healthy Lifestyle Survey.

3. To increase number of schools achieving National Healthy School Standards.

4. To complete child injury prevention strategy (injury is the most important cause of ill health and premature death in children).

5. Major challenge will be controlling the obesity epidemic and the health and economic consequence, when the States were unable to afford Phase 2 of the Obesity Strategy.

6. Improve mental health promotion.


**States Analyst**

**Achievements:**

1. Laboratory’s quality assurance system accredited by UK Accreditation Service, This accreditation provides clients of the service which confidence in the quality of the services provided by the laboratory.

2. Gas Chromatograph-Mass Spectrometer was introduced in August 2011. Urgent samples can now be turned around within an hour if needed. This is already proving a major tool in protecting the public against drugs, with two Emerging Drugs of Concern previously unreported in the UK being discovered in Guernsey using this equipment.
3. Major increase in Legionella testing, which will have reduced risks locally.

4. The laboratory had its busiest year, yet with nearly 67,000 workload units recorded up from about 64,000 in 2010), reflecting an increase in work for other clients, particularly the private sector and Guernsey Waste Water (see graph Figure 17).

Figure 15 Changes in Workload

![Graph showing changes in workload from 2004 to 2011.](image)

**Future Developments**

1. The Laboratory Information Management System will be introduced which will reduce the requirement for administration time.

2. To increase private Legionella testing to provide greater public protection

**Environmental Health**

The Office of Environmental Health and Pollution Regulation delivers Environmental Health services for the Health and Social Services Department (HSSD) so is directly aligned to HSSD and is part of the public health discipline. All 'back room' services for the OEHPFR are delivered through HSSD.
It is one of the few services that is entirely based in statute and dates back to the nineteenth century when the then ‘Inspector of Nuisances’ were appointed to work with the Medical Officer of Health in controlling disease and poverty in the community.

Over the last century the service has evolved to provide a modern environmental health and pollution regulation service, ensuring that impacts on the health of the public, eco systems and the environment are measured, monitored and when necessary mitigated to protect, maintain and improve public health.

In this context, the environment includes food, water, air, land and the built environment including houses, facilities used for leisure and work and the infrastructure.

**Achievements and Successes**

1. The service was delivered within budget.

2. All staff maintained professional membership of professional bodies in the UK.

3. In 2011 staff members were invited by other States departments to provide technical and scientific expert advice on a range of subjects e.g. PFOS contamination, planning consultation, licence applications for the airport development etc. These were delivered successfully.

4. The new IT database was successfully installed and provided an improved framework for data collection and reporting.

5. The joint arrangement with the States of Jersey was formalised through a joint contract, so that the DEHPR acts as the Channel Islands Joint Strategic lead for Environmental Health. A number of joint initiatives around law drafting, shared policies and procedures have been undertaken and there are more in the pipeline.

6. Consultation services and the development of new systems in a changing environment were significant achievements in 2011.
Table 4  Environmental Health Statistics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total complaints, enquiries and routine inspections</td>
<td>2,069</td>
</tr>
<tr>
<td>Seawater sampling undertaken at 32 coastal sites and submitted for analysis. Taken on behalf of Environment Dept under contract for bathing beach survey.</td>
<td>484</td>
</tr>
<tr>
<td>- Guide pass</td>
<td>206</td>
</tr>
<tr>
<td>- Mandatory pass</td>
<td>36</td>
</tr>
<tr>
<td>- Fail</td>
<td>9</td>
</tr>
<tr>
<td>Shellfish samples were taken for the classification of harvesting areas.</td>
<td>38</td>
</tr>
<tr>
<td>Leachate samples</td>
<td>90</td>
</tr>
<tr>
<td>Pest Control visits</td>
<td>353</td>
</tr>
<tr>
<td>- Rat infestations</td>
<td>282</td>
</tr>
<tr>
<td>- Mice, Ants, Bedbugs, Cockroaches, Fleas, Weavels, Wasps etc</td>
<td>71</td>
</tr>
<tr>
<td>Domestic water samples</td>
<td>44</td>
</tr>
<tr>
<td>- Mains water</td>
<td>14</td>
</tr>
<tr>
<td>- Boreholes and wells</td>
<td>30</td>
</tr>
<tr>
<td>Complaints requiring interventions</td>
<td>608</td>
</tr>
<tr>
<td>- Commercial bonfires</td>
<td>68</td>
</tr>
<tr>
<td>- Domestic bonfires</td>
<td>74</td>
</tr>
<tr>
<td>- Air Quality</td>
<td>1</td>
</tr>
<tr>
<td>- Dust, Effluvia etc</td>
<td>36</td>
</tr>
<tr>
<td>- Smoke not Bonfire</td>
<td>11</td>
</tr>
<tr>
<td>- Drainage and Sanitation</td>
<td>45</td>
</tr>
<tr>
<td>- Light Nuisance</td>
<td>4</td>
</tr>
<tr>
<td>- Accumulations</td>
<td>31</td>
</tr>
<tr>
<td>- Other Nuisances</td>
<td>58</td>
</tr>
<tr>
<td>- Housing Conditions</td>
<td>55</td>
</tr>
<tr>
<td>- Commercial Noise</td>
<td>135</td>
</tr>
<tr>
<td>- Domestic Noise</td>
<td>81</td>
</tr>
<tr>
<td>- Smell Nuisance</td>
<td>9</td>
</tr>
<tr>
<td>Communicable diseases requiring intervention</td>
<td>132</td>
</tr>
<tr>
<td>- Campylobacter</td>
<td>109</td>
</tr>
<tr>
<td>- Cryptosporidium</td>
<td>3</td>
</tr>
<tr>
<td>- E coli 0157</td>
<td>5</td>
</tr>
<tr>
<td>- Giardia</td>
<td>3</td>
</tr>
<tr>
<td>- Salmonella</td>
<td>8</td>
</tr>
<tr>
<td>- Staphylococcus aureus</td>
<td>2</td>
</tr>
<tr>
<td>- Shigella</td>
<td>2</td>
</tr>
<tr>
<td>Food Premises Inspections</td>
<td>416</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----</td>
</tr>
<tr>
<td>• Premises inspections</td>
<td></td>
</tr>
<tr>
<td>• New registrations</td>
<td>84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Food complaints</th>
<th>83</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Food Unfit/Labelling etc</td>
<td>38</td>
</tr>
<tr>
<td>• Premises Complaints</td>
<td>45</td>
</tr>
</tbody>
</table>

| Consultations – planning/building control - detailed responses | 83  |

| Consultations – licensing - detailed responses      | 48  |

<table>
<thead>
<tr>
<th>Joint strategic leadership for EH with Jersey</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Joint work on Housing and health</td>
<td></td>
</tr>
<tr>
<td>• Food legislation drafting</td>
<td></td>
</tr>
<tr>
<td>• Contaminated land</td>
<td></td>
</tr>
<tr>
<td>• Air quality</td>
<td></td>
</tr>
<tr>
<td>• Nitrates in drinking water</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Air Quality monitoring</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• 4 real-time analysis sites, NO₂, SO₂, CO, O₃, PM₁₀</td>
<td></td>
</tr>
<tr>
<td>• Monthly changeover of NO₂ diffusion tubes at 9 sites</td>
<td></td>
</tr>
</tbody>
</table>
Guernsey and Alderney deaths 2011, by Gender and Cause.\(^3\)

<table>
<thead>
<tr>
<th>CAUSE OF DEATH (ICD-10 codes)</th>
<th>Number of deaths</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer (C00-C97 or D00 to D48)</td>
<td></td>
<td>93</td>
<td>78</td>
<td>171</td>
<td>30%</td>
</tr>
<tr>
<td>Cardiovascular disease (I00-I52 or I60-I69)</td>
<td></td>
<td>87</td>
<td>73</td>
<td>160</td>
<td>28%</td>
</tr>
<tr>
<td>Respiratory disease (J00-J99)</td>
<td></td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>9%</td>
</tr>
<tr>
<td>Other (any other code not included above)</td>
<td></td>
<td>90</td>
<td>101</td>
<td>191</td>
<td>33%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>290</td>
<td>282</td>
<td>572</td>
<td>100%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>CANCER TYPE</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oesophagus (C15)</td>
<td>10</td>
<td>3</td>
<td>13</td>
<td>2%</td>
</tr>
<tr>
<td>Colon (C18)</td>
<td>5</td>
<td>6</td>
<td>11</td>
<td>2%</td>
</tr>
<tr>
<td>Pancreas (C25)</td>
<td>6</td>
<td>3</td>
<td>9</td>
<td>2%</td>
</tr>
<tr>
<td>Bronchus &amp; lung (C34)</td>
<td>18</td>
<td>16</td>
<td>34</td>
<td>6%</td>
</tr>
<tr>
<td>Breast (C50)</td>
<td>0</td>
<td>5</td>
<td>5</td>
<td>1%</td>
</tr>
<tr>
<td>Prostate (C61)</td>
<td>17</td>
<td>0</td>
<td>17</td>
<td>3%</td>
</tr>
<tr>
<td>Other cancers</td>
<td>37</td>
<td>45</td>
<td>82</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>93</td>
<td>78</td>
<td>171</td>
<td>30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CARDIOVASCULAR DISEASE TYPE</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute myocardial infarction (I21)</td>
<td>31</td>
<td>11</td>
<td>42</td>
<td>7%</td>
</tr>
<tr>
<td>Chronic Ischaemic heart disease (I25)</td>
<td>18</td>
<td>12</td>
<td>30</td>
<td>5%</td>
</tr>
<tr>
<td>Cerebrovascular diseases (I60-I69)</td>
<td>19</td>
<td>26</td>
<td>45</td>
<td>8%</td>
</tr>
<tr>
<td>Other cardiovascular diseases</td>
<td>19</td>
<td>24</td>
<td>43</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>87</td>
<td>73</td>
<td>160</td>
<td>28%</td>
</tr>
</tbody>
</table>

\(^3\) Includes stillbirths.
<table>
<thead>
<tr>
<th>RESPIRATORY DISEASE TYPE</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia (J18)</td>
<td>7</td>
<td>8</td>
<td>15</td>
<td>3%</td>
</tr>
<tr>
<td>Emphysema (J43)</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1%</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease (J44)</td>
<td>6</td>
<td>13</td>
<td>19</td>
<td>3%</td>
</tr>
<tr>
<td>Other respiratory diseases</td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>30</strong></td>
<td><strong>50</strong></td>
<td><strong>9%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER CAUSES</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unspecified dementia (F03)</td>
<td>10</td>
<td>25</td>
<td>35</td>
<td>6%</td>
</tr>
<tr>
<td>Senility ('old age') (R54)</td>
<td>5</td>
<td>9</td>
<td>14</td>
<td>2%</td>
</tr>
<tr>
<td>Chronic renal failure (N18)</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>1%</td>
</tr>
<tr>
<td>Deaths where an inquest verdict of suicide was returned (In 2011 X70 and X78)</td>
<td>7</td>
<td>2</td>
<td>9</td>
<td>2%</td>
</tr>
<tr>
<td>Accident deaths (V01-X59)</td>
<td>13</td>
<td>8</td>
<td>21</td>
<td>4%</td>
</tr>
<tr>
<td>Other 'other causes'</td>
<td>52</td>
<td>53</td>
<td>105</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>101</strong></td>
<td><strong>191</strong></td>
<td><strong>33%</strong></td>
</tr>
</tbody>
</table>

**Deaths by Major Cause Group**

<table>
<thead>
<tr>
<th>Major Cause Group</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>% of all deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>93</td>
<td>78</td>
<td>171</td>
<td>28%</td>
</tr>
<tr>
<td>Cardiovascular disease</td>
<td>87</td>
<td>73</td>
<td>160</td>
<td>26%</td>
</tr>
<tr>
<td>Respiratory disease</td>
<td>20</td>
<td>30</td>
<td>50</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>90</td>
<td>101</td>
<td>191</td>
<td>33%</td>
</tr>
</tbody>
</table>
### 2011 Vital Statistics by Island

#### Guernsey

<table>
<thead>
<tr>
<th>Source</th>
<th>M</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated mid-year population</td>
<td>31025</td>
<td>31890</td>
<td>62915</td>
</tr>
<tr>
<td>Live births registered</td>
<td>339</td>
<td>319</td>
<td>658</td>
</tr>
<tr>
<td>Stillbirths</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Deaths (all ages)</td>
<td>271</td>
<td>266</td>
<td>537</td>
</tr>
<tr>
<td>Deaths under age 1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Alderney

<table>
<thead>
<tr>
<th>Source</th>
<th>M</th>
<th>F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated mid-year population</td>
<td>1034</td>
<td>1077</td>
<td>2111</td>
</tr>
<tr>
<td>Births in Guernsey</td>
<td>5</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Births in Alderney</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total births</td>
<td>5</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Deaths (all ages)</td>
<td>17</td>
<td>16</td>
<td>33</td>
</tr>
<tr>
<td>Deaths under 1 year</td>
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#### Sark

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<th>Source</th>
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<td>Estimated mid-year population</td>
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<td>not known</td>
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<tr>
<td>Births in Sark</td>
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<td>0</td>
<td>1</td>
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<tr>
<td>Total births</td>
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<td>3</td>
</tr>
<tr>
<td>Deaths (all ages)</td>
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**Note:** Sark and Alderney births in Guernsey are also included in the Guernsey Life Births registered figure.
Staff employed within the Public Health Directorate during 2011

**Director of Public Health/Medical Officer of Health/Chief Medical Officer**
Dr Stephen Bridgman MBCHB MD MPH Dip Biomech FRCS (Ed) FRCS (Glas) FFPH

**Deputy Medical Officer of Health (Part-Time)**
Dr Brian Parkin MB BS BSc FRCP MRCGP DRCOG

**Personal Assistant**
Mrs Yvonne Kail

**Clinical Governance Unit:**

**Assistant Director Clinical Governance, Chief Nurse (from April 2011)**
Ms Sue Fleming

**Clinical Risk Manager/Patient Safety Advisor**
Ms Trish De La Mare Reg. PharmTech, PTQA Dip, FDSc MM

**Risk Support Officer**
Mrs Jo McGinn

**Clinical Audit Nurse**
**Clinical Audit and Quality Manager from September 2011**
Mr Brian O’Connell

**Office of Environmental Health and Pollution Regulation:**

**Director of Environmental Health and Pollution Regulation**
Mrs Val Cameron FFPH FCIEH Ch.EHO MREHIS MBA

**Deputy Chief Environmental Health Officer**
Mr Tony Rowe MCIEH

**Environmental Health Officers**
Mr Tobin Cook MSc CMCIEH
Mrs Jane Cutting GradCIEH
Mr Philip Goodchild MCIEH
Mr Stuart Wiltshire MCIEH

**Waste Regulation Officer**
Mr Simon Welch BSc(Hons) Cenv MCIWM CMIOSH AIEMA

**Pest Control Officers**
Mr Paul Tostevin
Mr Michael Brache

**Secretary**
Mrs Diane Harding
Epidemiology and Clinical Coding:

Public Health Analyst/Epidemiologist
Miss Jenny Cataroche MA (Cantab) MSc

Senior Clinical Coder
Mrs Margaret Cann, ACC

Clinical Coder
Mrs Sue Sheppard

Health Promotion Unit:

Health Promotion Manager
Miss Yvonne Le Page BEd (Hons) PgDip (HealthPromotion) FRSPH

Health Promotion Officer (smoking and heart disease)
Mrs Gerry Le Roy RGN

Health Promotion Officer (cancer)
Mrs Diane Mathews H.Dip

Health Promotion Officer (obesity)
Mrs Lynn Spencer HNC

Resources Officer
Mrs Stephanie Charlwood

Secretary
Mrs Kathryn Hamling (May 2011 onwards)

Infection Prevention and Control Unit:

Mrs Elaine Burgess RSCN, ENB329/998, C&G 7307, MSc (Health Sciences)
Mrs Kay Bull RGN, ENB329/998

Sexual Health Unit:
Dr Nikki Brink MBChB MMed FRCPath
Mrs Stella Vile RN
Mr Mauro Sensi RN
Ms Marianne Duquemin BSc Hons PGDip (CBT)

States Analyst Laboratory

States Analyst
Dr David Mortimer BA BSc(Hons) PhD Cchem FRSC MCIWEM (until March 2011)
Mr Roland Archer (from April 2011)

Mr Laurence Knight  BSc (Hons) Cchem MRSC
Mr Michael Hughes  BSc (Hons)MiBiol
Mrs Joanne Alder, BSc(Hons)
Mrs C. Joan Le Tissier HNC
Mr John Bullock
Mrs. Julie Perring
HSSD Board:

Deputy Hunter Adam (Minister)
Deputy Barry Brehaut (Deputy Minister)
Deputy Elis Bebb
Deputy David Inglis
Deputy Arrun Wilkie

HSSD Corporate Management Team

Mr Mark Cooke, Chief Officer
Dr Stephen Bridgman, Director of Public Health
Mr Richard Evans, Director of Corporate Services
Mrs Jacqui Gallienne, Director of Health, Social Care and Nursing Services
Mr Tom Niedrum, Director of Finance and Performance
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Page</th>
<th>Description</th>
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<tbody>
<tr>
<td>Recommendation 1</td>
<td>18</td>
<td>Health and health equity is explicitly considered in all key Government Policies and Programmes.</td>
</tr>
<tr>
<td>Recommendation 2</td>
<td>21</td>
<td>Further research is undertaken to estimate the number of islanders below Minimum Income Standards.</td>
</tr>
<tr>
<td>Recommendation 3</td>
<td>24</td>
<td>Review and implement systems of taxation, benefits, pensions and tax credits to provide a minimum income for healthy living.</td>
</tr>
<tr>
<td>Recommendation 4</td>
<td>24</td>
<td>Heath impact assessment of the modernisation of welfare system is carried out, looking at the effect on health, well-being and the economy of reduced poverty levels.</td>
</tr>
<tr>
<td>Recommendation 5</td>
<td>24</td>
<td>Income tax changes should be subject to at least an assessment of their likely health and well-being, and health equity impact.</td>
</tr>
<tr>
<td>Recommendation 6</td>
<td>29</td>
<td>The new health system needs to achieve affordable access to good quality preventative, medical, dental and optometric primary care for all.</td>
</tr>
<tr>
<td>Recommendation 7</td>
<td>32</td>
<td>The States adopt an income inequality measure as a Key Performance Indicator for health equity.</td>
</tr>
<tr>
<td>Recommendation 8</td>
<td>33</td>
<td>Health equity indicators within Guernsey require further development, including using primary care data.</td>
</tr>
<tr>
<td><strong>Recommendation 9:</strong></td>
<td>Qualitative research is needed on the impacts of health inequities on local people</td>
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<tr>
<th><strong>Recommendation 10:</strong></th>
<th>Local research is undertaken to assess the health needs of ethnic minorities and migrants</th>
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<td><strong>Page 33</strong></td>
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<tr>
<th><strong>Recommendation 11:</strong></th>
<th>Guernsey should consider participating in the WHO network of small European jurisdictions that wish to advance health equity.</th>
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<tr>
<th><strong>Recommendation 12:</strong></th>
<th>Develop jointly agreed policies that improve the availability of social housing for the less well off within a framework of environmental improvement, planning and design which takes into account social networks, and access to goods and services.</th>
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<td><strong>Page 42</strong></td>
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<tr>
<th><strong>Recommendation 13:</strong></th>
<th>Jointly agree policies which improve housing provision and access to health care for both officially and unofficially homeless people</th>
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<td><strong>Page 42</strong></td>
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<tr>
<th><strong>Recommendation 14:</strong></th>
<th>Jointly agree policies to improve insulation and heating systems in new and existing buildings in order to reduce the impact of fuel poverty and ill health associated with cold and dampness.</th>
</tr>
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<tr>
<th><strong>Recommendation 15:</strong></th>
<th>Introduce new housing legislation that will enshrine housing standards that will improve space and amenity to reduce accidents in the home and ensure a minimum standard for all housing in Guernsey.</th>
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<tbody>
<tr>
<td><strong>Page 42</strong></td>
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<tr>
<td>Recommendation 16:</td>
<td>Jointly agree initiatives and performance measures that will target resources into the most high risk housing areas to achieve the best health outcomes for the community.</td>
</tr>
<tr>
<td>Page 42</td>
<td></td>
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<tr>
<td>Recommendation 17:</td>
<td>Develop a strategy to increase rates of initiation of and continuation of breast feeding, including appointment of a lead health visitor for infant feeding to lead on policy and practice, support community services to obtain UNICEF baby-friendly accreditation, and develop volunteer peer support in early postnatal period with National Childbirth Trust.</td>
</tr>
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<td>Page 55</td>
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<tr>
<td>Recommendation 18:</td>
<td>Improve measurement, including introduction of internationally accepted measures of breastfeeding continuation rates, improve Infant Feeding Survey to at least meet the 85% response rate standard, record and monitor mother’s reasons for not starting or stopping breastfeeding, and set breastfeeding initiation and continuation rate targets in the States Strategic Plan.</td>
</tr>
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<td>Page 55</td>
<td></td>
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<tr>
<td>Recommendation 19:</td>
<td>Improved maternity leave and maternity benefits to support mothers continuation of breastfeeding.</td>
</tr>
<tr>
<td>Page 55</td>
<td></td>
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<tr>
<td>Recommendation 20:</td>
<td>Educate children on breast-feeding to ensure they regard it as normal behaviour using a programme such as that developed and used in North-West England, and a media campaign for teenagers.</td>
</tr>
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<td>Page 55</td>
<td></td>
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<tr>
<td>Recommendation 21:</td>
<td>Improve community support through improved employment practices to enable mothers at work to express and store breast milk, and provision of community facilities such as a quiet breast-feeding room in St Peter Port.</td>
</tr>
<tr>
<td>Page 55</td>
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<tr>
<td>Recommendation 22:</td>
<td>A dental and oral health needs assessment is carried out, from which an oral and dental public health improvement strategy is developed and implemented.</td>
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<tr>
<th>Recommendation 23:</th>
<th>Improve knowledge of local dental public health epidemiology, with continuation of periodic surveys of five year olds, surveys of twelve year children to monitor progress against WHO target, and use of local Guernsey Dental Association practice data to examine access to care, barriers to care, adult dental health including those with disabilities, and dental public health inequalities.</th>
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<tr>
<th>Recommendation 24:</th>
<th>Develop policies and protocols for dental health in children’s services such as nurseries, nursing and residential homes, and in the public sector such as ensuring public vending machines also provide healthy options, and in local sports association and clubs who should have policies of not promoting acidic energy or sports drinks.</th>
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<tr>
<th>Recommendation 25:</th>
<th>Further develop preventative policies and programmes using the common risk factor approach, including targetted preventative work for higher risk early years children, and provision of evidence-based interventions in schools such as the Brushing for Life programme.</th>
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<td>Page 73</td>
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<tr>
<th>Recommendation 26:</th>
<th>Counteract dental health inequalities, with children and adults with equal need having equal access to preventative and restorative interventions.</th>
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<td>Page 73</td>
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<tr>
<th>Recommendation 27:</th>
<th>The consumption of acidic drinks such as popular soft drinks and energy drinks, etc, should only be drunk with meals to prevent erosion of teeth. In between meals tap water or milk should be consumed.</th>
</tr>
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<tbody>
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<td>Page 73</td>
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</table>
**Recommendation 28:** Corporate organisations show increased responsibility and use their power to promote healthy lifestyles and products to our citizens.

**Recommendation 29:** SoG to consider policy options of taxation of sugar sweetened drinks to reduce consumption, provide funds for prevention and increased tax revenues, and to consider increased regulation of marketing of such drinks.

**Recommendation 30:** The Guernsey Dental Association to produce an infection control policy within a wider clinical governance policy. This policy should include internal and external assurances that infection control standards have been met. The Infection Control Unit to provide support, guidance and external assurance to the process.

**Figure**

<table>
<thead>
<tr>
<th>Figure</th>
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<tr>
<td>1</td>
<td>Mortality among children younger than five years of age and percentage of deprived households (lacking three or more essential items) in selected countries in the WHO European Region</td>
<td>7</td>
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<tr>
<td>2</td>
<td>Relationship between income inequality and prevalence of mental illness in developed countries (The Equality Trust)</td>
<td>8</td>
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<tr>
<td>3</td>
<td>The Health and Wellbeing Map showing the relationship between health and the physical/social/economic environment with people at the heart of the map (after Barton and Grant, 2006)</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Action is required throughout our life courses (after Marmot 2010)</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>Breastfeeding Initiation 1992–2011</td>
<td>46</td>
</tr>
<tr>
<td>6</td>
<td>Feeding initiation type by year for 2008, 2010 and 2011. Source: EUROKING (The denominators are live births with no medical reasons not to breastfeed).</td>
<td>47</td>
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<tr>
<td>7</td>
<td>Feeding initiation type by Maternal Age, 2010 and 2011 combined</td>
<td>47</td>
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<tr>
<td>8</td>
<td>Breastfeeding Initiation in Guernsey, England, South-West England and London</td>
<td>48</td>
</tr>
<tr>
<td>9</td>
<td>Impacts of Oral Diseases</td>
<td>57</td>
</tr>
<tr>
<td>10</td>
<td>Risk factors for dental and other chronic diseases</td>
<td>59</td>
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</table>
Mean decayed (d), missing (m), filled (f) teeth in five year old children in all Guernsey schools combined by year of survey

Mean percentage of five year old children who were decay free (no decayed, missing or filled teeth) or who had active decay in all Guernsey schools combined, by year of survey

Percentage of five year old school children recorded with active decay (dt>0) by school and year of survey, (not all schools shown for clarity)

Mean decayed, missing filled teeth (dmft) score in five year old school-children by school and year of survey (not all schools shown for clarity).

Changes in Workload

Table

**Table 1:** Numbers of women who initiated artificial and exclusive breast-feeding by age, 2010-11 combined (Figures are graphically represented in Figure 2).

**Table 2:** For 5 year old children Guernsey 2008 compared to England 2007/8, mean decayed, missing, filled teeth score (dmft), percentage children decay free, percentage children with experience of dental decay and mean dmft for children who have experience of disease.

**Table 3:** Dental Health Survey of 5 Year Old Children. Mean dmft by school, 2008 and 2011

**Table 4:** Environmental Health statistics
Appendix 1  Technical Note on Guernsey’s children dental surveys

Surveys were undertaken using the criteria set by the British Association for the Study of Community Dentistry (BASCD). Dentists undertaking the surveys are trained and calibrated so that data between areas are comparable, ie dentists diagnose decay in the same way. In the 1989 survey, the criteria BASCD used for “decay” were stricter, and led to underscoring in the 1989 survey, so the improvement between 1984 and 1989 may be an artefact of the methods used.

The 1984 and 1989 surveys were a sample drawn from the target population, whereas all subsequent surveys attempted to examine the whole 5 year old population. These surveys were carried out by Birmingham School of Dentistry. All surveys up to 1999 were carried out using “negative” consent. Parents were informed of the impending school dental survey and were given the opportunity of withdrawing their child. Very few parents withdrew children. Surveys from 2002 onwards used positive consent where parents had to “opt in”. In 2002 only children in which a consent form had been returned were examined, which was about 75% of children. In later surveys, consent was obtained when the child was 3.5 years old at the development check, and uptake was much greater. In 2002, it is possible that children not examined were more likely to have had more disease. Surveys up to and including 1999 in Guernsey did not include private schools, and UK surveys do not include private schools. In 2011, 96% of the total population of reception year were examined. The 2011 figures relate to the Reception Year, which may include some 4 year old children. In the 1999 survey, Year 1 children (6 years old) rather than reception children (5 years old) were examined. The inferior results in 1999 may partly be explained by this anomaly.
APPENDIX 2

Townsend Centre for International Poverty Research Studies (Gordon et al 2001/2), further details.

The Townsend Centre undertook a Survey of Guernsey Living Standards (Gordon et al 2001/2). They produced a series of four reports; the Necessities of Life; Views of the People; Poverty and Standard of Living in Guernsey; Anti-Poverty Policies for Guernsey. Although now just over ten years old they give a powerful insight into poverty on the islands that is still relevant today.

The groups identified by the Townsend Centre as being most vulnerable to relative poverty are still recognised in the States Strategic Plan (States of Guernsey (SoG) 2011, p1954).

There are many different ways of measuring poverty (Gordon et al 2002). The Guernsey study, based on UK studies, adopted a definition of poverty based on a standard of living unacceptable to the majority of the population. The validity of the approach rests on a cohesive view of what is unacceptable among different groups in society.

The primary meaning of need is “deprivation”. Townsend distinguishes sub-categories of material deprivation, food, health, clothing, housing, household facilities, environment and work, and of social deprivation related to family activities, social support and integration, recreational and educational (Townsend 1993).

Questions in the Guernsey survey were based on the Poverty and Social Exclusion Survey of England, with a few additional items and activities and questions modified taking into account the specific living conditions in Guernsey, in particular for the elderly.

Necessities of Life
Households were randomly selected from the Census database. Institutions, hotels and guest worker “hostels” were excluded. Following a short telephone interview to determine household characteristics, 855 households agreed to take part (64% of the sample), and a questionnaire sent to each person in the house. 856 Guernsey residents returned the postal questionnaire, a response rate of 64%.

The questionnaire asked what they considered to be the necessities of life, which everybody should be able to afford and no-one should have to do without. Of the 83 questions on necessary items, social activities, and essential services, 53 related to adults and 30 to children’s necessities.

In previous UK surveys items and activities attracting a 50% or higher support from the surveys were considered socially perceived necessities. Adult items were classified into; food; housing; clothing; information; consumer durables; financial; medical; social. Child items were classified into; food; clothing; participation; developmental; environmental.

Items with more than 90% responses for Guernsey are noted below, although items with support by more than 50% of the population are included in the measure of relative poverty (Gordon et al 2001).
The following percentage of respondents perceived the following to be necessary for adults; 100% beds and bedding for everyone in the household; 97% enough money to visit their family doctor, pay for medicine prescriptions, buy glasses/hearing aids or other medical aids; 96% heating to warm living areas of the house if it is cold, and a refrigerator; 95% a damp-free home, enough money to keep home in a decent state of repair, and celebrations on special occasions such as birthdays; 94% a warm waterproof coat; 92% two meals a day, and replace or repair electrical goods such as a refrigerator; 91% insure contents of the home.

The following percentage of respondents perceived the following necessary for children; 99% a warm waterproof coat; 97% properly fitted shoes, and a bed and bedding to himself; 95% all the school uniform required by the school, and celebrations on special occasions such as birthdays; 94% fresh fruit or vegetables at least once a day; 92% three meals a day.

In addition the survey asked about essential services that can affect the standard of living, 22 on general services, 6 specifically for children, and 5 for the elderly. The following percentages of respondents perceived these local services as essential; 100% hospital, and doctor; 99% dentist; 98% optician; 97% chemist; 93% availability of home help for elderly; 92% special transport for elderly.

Views of the People on how to Improve the Standard Of Living
From the 856 respondents, over 4,000 suggestions were received on how to improve life in Guernsey. Islanders were asked for three main suggestions, for their own quality of life, for that in their Parish/Guernsey, for that of less well off islanders.

There was a great deal of support from islanders to improve the quality of life for the less well off. Housing came out as the most important category, with costs and poor quality being key issues. Improved provision of free or cheap public transport and healthcare were also the other top single issues. The idea of raising incomes for the less well off, through higher pensions and benefits, better paid jobs and lower income tax were also suggested. The low incomes of pensioners were a particular concern.

Poverty and Standard of Living
Interviews were carried out in 433 households in which over 1,097 people lived, 834 adults and 263 children. Questions were asked about themselves and their households, including demographics, income, benefits, educational attainment, and residence.

People were defined as being in poverty or poor, when they had both a low standard of living and a low income. A low standard of living was defined as not having at least four of the necessities of living as defined in phase 1 of the study, in which 50% of residents considered people should be able to afford and not do without.

Over 60% of lone parents and over 40% of single pensioners were in poverty. Of States renters over 50% were in poverty, compared to 25% private renters and 6% of owner occupiers. In summary, people living in poverty go without a whole range of items because of a shortage of money. Subjectively 5% of the population considered they live in poverty all the time, and 16% some of the time.

Housing and Health
Housing was a particular issue, with three times as many households in Guernsey with damp problems as in the UK. Problems with accommodation affected a higher proportion of private renters than either States renters or owner-occupiers. Using objective measures of poverty, the poor are less likely to live in detached houses.
Two thirds of those considered they are poor all the time lived in a terraced or semi-detached house. Six per-cent of respondents said the health of someone in their household was made worse by poor housing, ranging from 12% of those aged 16 to 29, to 9% of over 65s. Given the high rates of housing problems in Guernsey, especially damp, it was concluded that poor housing was affecting population health. The Guernsey figures, confirm extensive scientific evidence that poor housing significantly affects health (see section of report on housing and health).

**Health and Poverty**

Islanders were asked a range of health questions, including the EuroQol EQ-5D questionnaire which defines the current health state in terms of mobility, self-care, usual activities, pain/discomfort, anxiety and depression, and an overall health state measure. In addition questions were asked about overall health in the previous six months, long-standing illness, disability or infirmity, and whether these limited activities in any way. The final question was on whether at time during the past year they had felt isolated from society or depressed because of lack of money.

The association of poverty and health were very marked. There was a linear trend between rising income and better health. For the great majority of health measures those who were poor fared significantly worse that those were not poor. When controlling for age, sex, household type, level of education and place of birth, the poor in Guernsey were found to be four times as likely to be ill than the rest of the population. Poorer people were over fifteen times as likely to report societal isolation or depression during the last year because of a lack of money than better off people.

Depression and social isolation was also associated with people not satisfied with their accommodation, where they lived, or unable to work because of illness or disability. Guernsey figures reflected international research which shows poverty is associated with poorer health. In simple terms, poor people in Guernsey are at least four times more likely to be ill than the rest of the population.

The research showed a minority of people with such low incomes that their standard of living is below the minimum acceptable to the majority of islanders. Over 3,000 Guernsey households (16%) are estimated to be poor, with a low income and suffering from multiple deprivation that is 4 or more necessities of life which the majority of islanders think they should be able to afford. Of different groups, 63% of lone parents, 43% of single pensioners and 26% of large households with children were suffering from poverty.

**Local Services and Poverty**

Collective exclusion is defined as when services were not available, and individual exclusion when services were priced out of individual reach. Collective exclusion affected about 30% and individual exclusion about 14%. None of the respondents said they could not afford the doctor or chemist, but 6% could not afford to use the dentist. Five percent of respondents said they had collective exclusion from doctors.

Poor people were also found to have less social support, and had some difficulties when paying to use public sports and cultural facilities and the dentists.

Poverty rates were lower in Guernsey that the UK, but highest among single pensioners. The poorest suffer twice as much stress as the rest of the population. More people thought poverty had increased in the previous ten years despite rapid economic growths, and thought poverty would increase in the next ten years than thought poverty would decrease. About 2/3rds of people supported an increase in tax to help end poverty in Guernsey.
Health Services

Almost all the population surveyed thought that everyone should have enough money to visit their family doctor and pay for medicine prescription charges when sick, and to buy glasses and/or hearing aids.

Six percent of people said they did not always have enough money to visit their family doctor and pay for medicine prescription charges when sick, and 9% did not have enough money to buy glasses, hearing aids or other medical aids.

Several factors sustaining the association between poverty and poor health were:

- Difficulty in obtaining (and keeping) good quality, affordable housing for those on low incomes;
- Lack of affordable childcare for lone parent families on low incomes;
- Lack of suitable accommodation for the disabled;
- High cost of living on the island making eating a well-balanced healthy diet difficult for low income families;
- On-going costs of healthcare for people with long-term medical conditions who do not receive supplementary benefit and who are in the low income bracket, many of whom are excluded from private healthcare insurance schemes by nature of their health condition.

One-sixth of young people aged 16-24 could not afford to visit a doctor and pay for medical prescription charges when sick, or to buy glasses, compared to 6% of the population as a whole. Young people were more likely to experience isolation and depression as a result of lack of money than all other age groups.

Perceptions of Poverty

The scientific measurement of relative poverty found that 16% of the population were poor. Seven percent of households said their incomes were inadequate to avoid absolute poverty and 12% general poverty. Many more people thought poverty would increase over the next ten years rather than decrease. Two-thirds of islanders thought poverty was caused by inevitable changes in society, injustice of bad luck. Two-thirds supported a tax increase to end poverty.

Pensioners made up a third of poor islanders.

Suggested policy changes

Two main strategies were suggested to reduce the health-related costs of sick or disabled people. Instead of a small universal grant towards the cost of seeing the doctor which for many people had become meaningless, a much larger grant was suggested for those with chronic illness, consultations solely for a repeat prescription, and pre-school consultations.

The report points out that the UN Convention on the Rights of the Child commits signatories to provide the highest attainable standard of healthcare for children up to the age of 18, including full access to healthcare services (Article 21). This was considered to be best achieved through universal free healthcare provision funded through progressive taxation (“universal clawback”).
Greater regulation of the rental sector was considered, to counteract the lack of legally enforceable accommodation standards.

One of the findings that was perhaps one of the easier to address was the prevalence of poverty among single pensioners compared with pensioner couples. For a number of years following the Townsend Report, the States approved higher increases in pension rates for single pensioners than for pensioner couples.
**Glossary**

**Determinants of health**

The range of personal, social, economic and environmental factors which determine the health status of individuals or populations. The factors which influence health are multiple and interactive. Potentially modifiable determinants of health include not only those related to the actions of individuals such as health behaviours and lifestyles, but also factors such as income and social status, education, employment and working conditions, access to appropriate health services and the physical environments. These in combination create different living conditions which impact on health. Achieving change in these lifestyles and living conditions, which determine health status, are considered to be intermediate health outcomes. (WHO 1999)

**Equity in living conditions for all individuals and households**

This concept is understood to reflect a contextually determined “acceptable” range of inequalities in income, wealth and other aspects of life in society, with the presumption of general agreement with regard to what is just or fair (or “equitable”) at any given time in any particular community, or in the world as a whole if universal norms are applied. This shift in terms, from equality to equity, derives from the fact that equality in living conditions has never been achieved in practice (except on a very limited scale by small religious or secular communities), has never been seriously envisaged by political theorists or moralists (except in the context of describing attractive—or more often repulsive—utopias), and is today commonly perceived as incompatible with freedom. (UN2006, p25)

**Equity - Health**

Equity in health implies that ideally everyone should have a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential, if it can be avoided. The term *inequity*…refers to differences in health which are not only unnecessary and avoidable but, in addition, are considered unfair and unjust. (WHO 1999).
<table>
<thead>
<tr>
<th><strong>Health</strong></th>
<th>A state of complete physical, mental and social wellbeing and not merely the absence of disease of infirmity.</th>
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<tr>
<td></td>
<td>The reduction in mortality, morbidity and disability due to detectable disease or disorder, and an increase in the perceived level of health. The first definition that of the WHO Constitution, expresses an ideal, which should be the goal of all health development activities (i.e. health as a fundamental right and a worldwide social goal). It does not, however, lend itself to objective measurement, and for working purposes a narrower definition is required, and the second definition is usually used for this purpose. (WHO 1999).</td>
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<tr>
<td><strong>Health development</strong></td>
<td>The process of continuous, progressive improvement of the health status of a population (WHO 1999).</td>
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<tr>
<td><strong>Health for all (HFA).</strong></td>
<td>As a minimum all people in all countries should have at least such a level of health that they are capable of working productively and participating actively in the social life of the community in which they live (WHO 1999).</td>
</tr>
<tr>
<td><strong>Health gain</strong></td>
<td>An increase in the measured health of an individual or population, including length and quality of life (WHO 1999).</td>
</tr>
<tr>
<td><strong>Health potential</strong></td>
<td>The fullest degree of health that an individual can achieve. Health potential is determined by caring for oneself and others, by being able to make decisions and take control over one’s life, and by ensuring that the society in which one lives creates conditions that allow the attainment of health by all its members (WHO 1999).</td>
</tr>
<tr>
<td><strong>Health promotion</strong></td>
<td>The process of enabling individuals and communities to increased control over the determinants of health and thereby improve their health. An evolving concept that encompasses fostering lifestyles and other social, economic, environmental and personal factors conducive to health (WHO 1999).</td>
</tr>
</tbody>
</table>
Indicators

Variables that help to measures, changes in the health situation, directly or indirectly and to assess the extent to which the objectives and targets of a programme are being attained (WHO 1999).

Inequalities (UN 2006, p17-19). UN consider six key areas of inequality in the distribution of goods, opportunities and rights that underlie social justice, namely:

Income

Assets, including capital, physical and land

Opportunities for work and remunerated employment – the main determinant of income distribution

Access to knowledge, through school, universities etc, as this enables social mobility

Health services, social security and provision of a safe environment (underpinned by article 22 of the UN declaration of Human rights

Civic and political participation

Poverty

“...not having the basic necessities of life to keep body and soul together (Gordon et al 2002, p135)

Absolute or extreme poverty

“A condition characterised by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education, and information. It depends not only on income but also on access to services (Gordon et al 2002).

General Poverty

Level of income needed to avoid poverty using the subjects own definition of what “poverty” means to them. (Gordon et al 2002).

Overall Poverty

A wider measure, including not just lack of access to basics, but also lack of participation in decision-making, civil, social and cultural life (Gordon et al 2002,p135 -used with respondents in Guernsey survey).
 Relative Poverty

“. ..not having those things that society thinks are basic necessities. Overall poverty also means not being able to do the things most people take for granted (either because you can’t afford to participate in usual activities or because you are discriminated against in other ways. What constitutes overall poverty will vary between different societies and at different points in time.” (Gordon et al 2002, p135used with respondents in Guernsey survey).

People are said to be living in poverty if their income and resources are so inadequate as to preclude them from having a standard of living considered acceptable in the society in which they live. Because of their poverty they may experience multiple disadvantage through unemployment, low income, poor housing, inadequate health care and barriers to lifelong learning, culture, sport and recreation. They are often excluded and marginalised from participating in activities (economic, social and cultural) that are the norm for other people and their access to fundamental rights may be restricted.” EU (2004, p7).

Social capital

Social capital represents the degree of social cohesion which exists in communities. It refers to the processes between people which establish networks, norms and social trust, and facilitate coordination and cooperation for mutual benefit (WHO 1999).

Social exclusion

Social exclusion is a process whereby certain individuals are pushed to the edge of society and prevented from participating fully by virtue of their poverty, or lack of basic competencies and lifelong learning opportunities, or as a result of discrimination. This distances them from job, income and education opportunities as well as social and community networks and activities. They have little access to power and decision-making bodies and thus often feeling powerless and unable to take control over the decisions that affect their day to day lives.

Social inclusion

Social inclusion is a process which ensures that those at risk of poverty and social exclusion gain the opportunities and resources necessary to participate fully in economic, social and cultural life and to enjoy a standard of living and well-being that is considered normal in the society in which they live.
It ensures that they have greater participation in decision making which affects their lives and access to their fundamental rights

Social justice

The Charter of the United Nations makes no explicit distinction between international justice, or justice among nations, and social justice, or justice among people. The application of social justice requires a geographical, sociological, political and cultural framework within which relations between individuals and groups can be understood, assessed, and characterized as just or unjust. In modern times, this framework has been the nation-State. In the contemporary context, social justice is typically taken to mean distributive justice. In international justice, Governments are compelled to represent and serve their populations and act in their best interest, without discrimination, (UN 2006). Economic justice, defined as the existence of opportunities for meaningful work and employment and the dispensation of fair rewards for the productive activities of individuals, will be treated here as an aspect of social justice. Individuals, institutions, Governments and international organizations make judgments about what is just and what is unjust based on complex and generally unformulated frameworks of moral and political values.
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