

Summary Annual Report of the Director of Public Health 2015





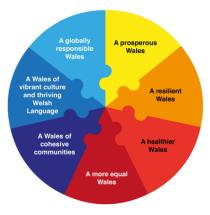




Executive Summary

The focus of the ABUHB Director of Public Health's Annual Report 2015 is sustainable development of population health. The most successful policies for sustaining and improving the health of the population are those which deal with economic growth, human development and health in an integrated way. The environment, housing, employment, income, nutrition, transport and community cohesion all impact in either a negative or positive way on health.

It has long been established that health cannot be separated from other goals such as developing thriving vibrant communities and prosperity. In 2014, the Welsh Government set out its Wellbeing of Future Generations Bill, later to become Wellbeing of Future Generations (Wales) Act 2015. This sets into the legislative framework social, cultural and economic development grounded in health improvement. Measures taken to improve public health will simultaneously contribute to meeting each of the seven wellbeing goals outlined in the Act, including creating a more prosperous, resilient, socially just and equal Wales with cohesive and thriving communities.



The need to create the conditions which increase the likelihood of people, particularly children and young people, adopting behaviours which contribute to good health and deter them from adopting health behaviours which are risk factors for poor health in later life are discussed. The Wellbeing of Future Generations Act provides a favourable policy context in which to make systems level changes to create supportive environments, develop personal skills, strengthen communities and re-orientate services to improve health. We illustrate this specifically in relation to three 'wicked issues'; Type 2 Diabetes, Cancers and Climate Change.

Type 2 Diabetes

Type 2 diabetes is a mostly preventable, life changing chronic condition, which can lead to complications such as heart disease, stroke, limb amputation and blindness if not well managed. These complications can have a negative effect on an individual's physical health and mental well being, which in turn might have a wider effect on family members.

In Gwent, almost 38,000 people are known to have diabetes, 90% of which will be Type 2 with many more people likely to be undiagnosed. This rate is increasing and people are being diagnosed with Type 2 diabetes at an earlier age. In addition to the impact on individuals and families, the impact on public resources is significant.

In Type 2 diabetes, the body's inability to respond to insulin is linked to excess body weight – having a Body Mass Index (BMI) over $25/m^2$. Being overweight or obese accounts for 80-85% of the risk of Type 2 diabetes.

Regular physical activity increases the body's sensitivity to insulin, reducing the risk of Type 2 diabetes independently of body weight. Modest weight reduction (5%) combined with regular exercise can reduce the risk of diabetes by 50%. However, self reported physical activity levels are low across Gwent with two thirds of the adult population not meeting the recommended levels of physical activity.

Smokers with diabetes are more likely to suffer complications.

To reduce levels of Type 2 diabetes we need to create the conditions that facilitate:

- reduction in levels of being overweight or obese in our population
- increased levels of physical activity
- · reduction in numbers of people smoking

The need to raise awareness of these issues for young people is emphasised in order to reverse the current surge of Type 2 diabetes.

Cancer

There are many different types of cancers, with many different risk factors. Whilst the exact causes of some types of cancer remain uncertain, contributing factors for common cancers are now clear. Some risk factors such as age and genetic profile are not modifiable, whilst others are. It is estimated that about 4 of every 10 cases of cancer could be prevented by reducing exposure to risk factors.

Many forms of cancer, especially if detected early enough, can be treated successfully and mortality rates from cancer have fallen by 21% in the UK since the 1990s, largely due to advances in early detection and treatment. However, it is concerning that not only are those with greater socioeconomic deprivation more likely to present with new cancers, they are less likely to survive than those who are more affluent. This is likely to be due to a number of factors including higher exposure to risk factors, lower uptake of cancer screening and different help seeking behaviour if symptoms are experienced. To reduce new cases of preventable cancer, we need to reduce exposure to risk factors which will reduce the likelihood of those who are currently young, developing cancer in the future, increase uptake of national screening programmes in deprived areas and improve public and professional knowledge of 'red flag' signs indicating cancer needs to be thought of as a possible diagnosis to aid early detection.

The main preventable risk factors for cancer include smoking, being overweight or obese, poor diet (lacking in green vegetables, fibre, whole grains and pulses, with too much red and processed meat), alcohol, exposure to too much sun/UV light and physical inactivity. We need to create the conditions which make it easier for people to establish and maintain healthy lifestyles and reduce the normality of behaviours and conditions which lead to ill health.

Impact of Climate Change on Human Health

The scientific consensus is that warming of the climate system is now beyond doubt and there is very high confidence that the net effect of human driven activity since 1750 has contributed to this. This is the result of increasing levels of 'Green House' gas (GHG) emissions into the atmosphere, mainly driven by factors such as increased human and animal population size, increased industrial activity and increased energy use, with slow progress on renewable energy sources.

Emissions have continued to increase from 1970 to 2010 with larger absolute increases between 2000 and 2010, despite a growing number of climate change mitigation policies. In the UK, summer rainfall has decreased and winter rainfall has increased. Climate projections indicate that annual mean temperatures will be around 2 to 5 °C higher than present in the UK by 2080.

Impacts of climate-related extremes include alteration of ecosystems, disruption of food production and water supply, and damage to infrastructure and communities (through flooding for example). Climate change is forecast to have its greatest effect on those who have the least access to the world's resources and who have contributed least to its cause. Without mitigation and adaptation, it will increase health inequity especially through negative effects on the social determinants of health in the poorest communities.

It is predicted that regional changes in air and sea temperature, sea levels, precipitation, and extreme weather events will cause effects on the environment that lead to adverse health effects. The World Health Organisation (WHO) has proposed climate change as the biggest global public health threat of the 21st Century.

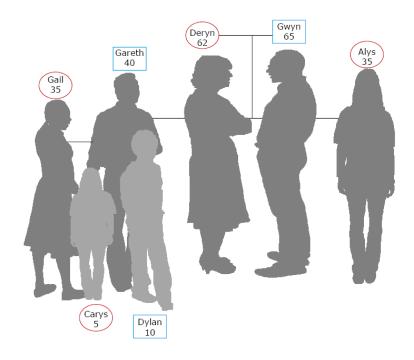
Addressing climate change collectively will require action at every level. Much will depend on international and national policies and regulations. However, at a local level this is an agenda that every organisation and every individual can take some responsibility for. Reducing emissions through better transport, food and energy choices can result in improved health, particularly through reduced air pollution. Major public health benefits could be achieved by the implementation of policies to reduce private car use and increase active travel (for example, walking and cycling), with associated benefits to physical health and mental wellbeing.

Emergency Preparedness, Environmental Health and Communicable Disease

Two events, both of global importance and both of which required a local response and extensive multiagency planning to ensure Health Protection have had an effect locally. These are the Wales NATO summit at the Celtic Manor, Newport and the Wales response to the outbreak of Ebola in West Africa. Both illustrate the globalised nature of the world and the need for all organisations and individuals to demonstrate global responsibility in their actions. They also illustrate that events of global significance have local implications for our emergency plans and contingencies.

We are now going to explore two scenarios depicting events in the lives of a fictional local family (the Jones family), one positive and the other negative, related to each topic. Whilst fictional, the scenarios are grounded in reality, based on whether we focus our efforts towards sustainable development in the future, or not.

Meet the Jones Family



In 2015, we meet the Jones family, a typical family who have lived and worked in Gwent all their lives. Gwyn Jones is a sociable 65-year-old sales manager (and Newport Dragons supporter) and is married to Deryn, a 62-year-old sales assistant who loves having their grandchildren over.

They have two children; Gareth, their eldest, is 40 years old and works as an IT technician, and Alys, aged 35 years old, works in a travel agency. She has promised Gwyn a cruise to Norway when he retires next year. Gareth is married to Gail, aged 35 years, a baker at Megan's Wedding Cakes. Gareth and Gail have two children, Carys aged five and Dylan aged 10. Dylan likes helping his mother in the kitchen and Carys is a budding diva, who knows all the 'Frozen' songs off by heart.

Fast forward 35 years to 2050. Dylan and Carys have grown up now and are 45 and 40 years old. Dylan owns a restaurant in Cwmbran and is married to Debbie, a nurse. Their daughter, Bronwen, is 15 years old, and always has her head in an electronic reader. Carys is a primary school teacher and is engaged to Nick, who works in a local banking call centre.

In three snapshots, we will learn more about how the family's life has turned out in 2050.

For each snapshot, there are two possible outcomes; a positive one where the future looks bright and health is good and, in contrast, a negative one where options are limited and health outcomes are poor. We will look at the factors that influence each possible outcome.

Blue Sky at the Seaside - Grandpa Gareth's Story



Four generations of the Jones family are spending the day together at the seaside. Whoever would have thought it? My dad, Gwyn Jones, Great-Grandpa Gwyn, it's his 100th birthday soon and it's my 75th today. I'm not sure how many more birthdays we will share, so I wanted us all to get together. There are eight of us all together; my wife Gail, my son Dylan and his wife Debbie, and our lovely granddaughter Bronwen, who's 15. Of course, there's the birthday boy, my mother Deryn and also Alys, my sister.

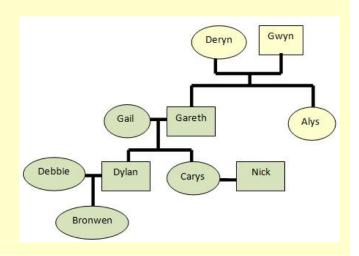
We used to come here for family holidays when I was a boy. It hasn't changed too much. The beach is pretty much the same, probably cleaner; there are recycling bins everywhere and proper tidy toilets. The tide's higher and the donkey rides have gone, but they have all manner of activities here now. In my day, you made sandcastles and had a swim; now you're expected to join in with beach volleyball and 'sand fit'. Someone's always trying to organise me (I quite enjoy it really!).

I've got my sister Alys on sun protection patrol. She's got parasols, sun hats, sunglasses and she's chasing after everyone with sunscreen. Then there's my daughter Carys, another 'organiser'. She's making sure everyone stays hydrated throughout the day with her water bottles and fruit kebabs. It's her poor husband Nick that's got to run and get the ice from the kiosk though. Then there's my wife, Gail, trying to make sure we've all got enough to eat. There's no chance of us starving, we're having a barbeque with some fresh local fish and I've brought plenty of salad from the allotment.

It's no surprise that my son, Dylan, has recently received a prestigious business award for his eco- restaurant and the healthy options menu. He gets his passion for healthy eating from his mother. He takes after me with his interest in the environment and nature. Many hours we've spent walking together in the local nature reserves, with our cameras. Dolphins have been spotted off this stretch of coast. I wonder if we will see any today. That would be a birthday treat!

I know I'm supposed to be relaxing but I can't sit around in this heat. Even on my days off from the office I'm active. The allotment keeps me busy. This heat is not good for it though. My allotment neighbours are keeping an eye on it for me. Our water efficiency pays off on days like today. We've plenty of rain and recycled water in the butts to use.

Dylan works hard at maintaining his work-life balance. Running a successful business and managing his stress levels are a challenge, but cycling to work every day helps. He would have loved to have cycled here today. The cycle path to the seaside is one of the best and most popular in the country. But in the interest of time with the family, and thanks to a group discount, we all travelled together on the South Wales metro. There's no chance of anyone missing out on their daily activity though. Dylan and his wife Debbie checked the surf forecast and have brought their boards. And their daughter Bronwen, who, it has to be said, was a little reluctant to leave her friends behind today, is already in the sea. She's an active one — loves her hiking adventures, football, cheerleading and Tai Kwando, wants to be a black belt! Today is the first day that the street where they live has been designated a play area for the summer holidays. No cars allowed for 6 weeks. All the kids will be out having fun, playing games. With all the birthday celebrations planned here, I don't think she'll miss them too much.



Dark Sky at the Seaside – Grandpa Gareth's Story

Three generations of the Jones family are spending the day together at the seaside. Whoever would have thought it? It's my 75th birthday. I'm not sure how many more I will have, so I wanted them all to be here; my wife Gail, my son Dylan and our lovely granddaughter Bronwen. I think everyone was glad to escape the city. Trouble seems to bubble up there all too frequently; fuelled by over-crowding, rival gangs and drugs. I don't think the heat helps.

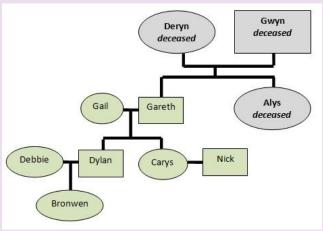
I remember family holidays here. When I was a boy, we'd have picnics on the beach and make sandcastles. There were donkey rides too. Dad would buy us all ice cream and I'd swim in the sea. My sight might not be what it was but my memory is still pretty good. Sadly, the beach has all but gone and the sea, well, no one swims in it these days. It's not clean like it was in my day, but one or two brave ones sometimes have a paddle.

I should have kept up the swimming. I might have kept my circulation going. Diabetes is a terrible thing if it's undetected. No one understands how it changes your life. It certainly changed mine. Everyone looks forward to retirement...I certainly wasn't expecting to spend mine needing a wheelchair. They said the fact I smoked led to it on top of the diabetes. Not enough oxygen to the tissues. The carers are marvellous of course. I don't know how we would manage without them. It's been tough for my wife Gail. She hasn't been in the best of health herself. She's a little over weight or 'obese' as the doctor says. She's been a bit down lately, well for a few years really. So she's got to take her medication or she would never get out of the house. She can't retire yet unfortunately, now that they've extended retirement age. Although she is very lucky to have a job, pay is not keeping up with the cost of living. We're on a tight budget. So this is our son's treat. We're going to have a nice meal at one of his restaurants.

My son, Dylan, is 45 now and doing very well for himself. He runs a successful chain of ultra-fast food restaurants and he is opening his 20th restaurant right here overlooking the sea. He takes after me; hard working and good with money (not to mention good-looking!). Record profits this year, apparently. Unfortunately, he also inherited my taste in food, and his weight seems to have escalated along with his business success. Sadly, the reward of long hours in the office and fast food seems to be type 2 diabetes for him too. Spotted early thank goodness so he has learned to manage his diabetes much better than I did; and without too much disruption to his long working day. He has regular eye tests, takes his medication and keeps his appointments with the diabetes nurse and the chiropodist. Managing his stress levels is a challenge, but he doesn't want to end up like me, or his grandfather. My father died of a stroke at 65, and Dylan has a high risk with his blood pressure, so a day at the seaside will help keep his blood pressure down. It's a shame his wife Debbie can't come, but they're run off their feet at the hospital.

At least Bronwen, my granddaughter, is here. Not such a little girl anymore. She's 15, going on 21! A bit on the large size for her age; she's struggling to lose the puppy fat. She is a bit embarrassed. At least she has friends in the same situation that she can talk to about it. They never meet though. It's all online these days. I don't understand it. Kids seem to spend all their time indoors. It's no wonder she suffers from anxiety sometimes. It's a wonder these kids don't get rickets they see so little sun. She never even goes to the swimming pool, let alone the seaside. We had to promise her a visit to the gaming arcade and ice cream afterwards; just a small one!

That sea air is lovely. The air is so much cleaner than in town. Once Bronwen gets out of the car, and feels the breeze, she'll be glad she came.



Tears of Joy - Bronwen's Story



I've just seen the wedding photos. Four generations of the family beaming with happiness and health. It was a beautiful wedding. Great Aunt Alys took some lovely photos of Aunty Carys and Nick finally getting married. I wonder how far they have got on their cycling honeymoon across Devon.

They both love cycling. Carys and Nick are in the Pontypool Peddlars Cycling Club. The bride-to-be arrived in a bicycle sidecar. Some guests shared the specially hired bus, but many came by bicycle, in a convoy. It was quite a sight, I had spent most of the previous day decorating the bikes. We were under strict instructions to only use recyclable materials in green, pink and white, in keeping with the eco theme.

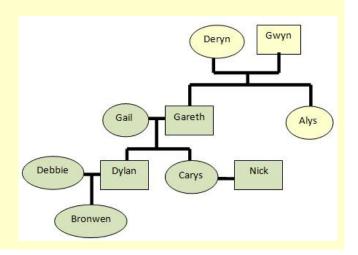
The wedding was in beautiful woodland. One good thing about the measures to reduce global warming was the reforestation subsidy and the drive to plant and protect trees everywhere. This is great news for wildlife and great for interesting wedding venues. The vicar wore his hiking boots and we threw coloured rice confetti. Dad's friend brought his mobile disco. I'm not sure whether the forest creatures appreciated the music as much as the rest of us did though. There was plenty of action on the 'dance floor' last night, some of it I would rather have not seen! Great Aunt Alys, after successful cancer treatment, is like a new woman, determined to live life to the full. At least cervical cancer is something I won't have to worry about. I've had my vaccinations and I will go for any screening offered.

Beautifully lit by hundreds of solar powered lights, the evening party was fabulous. Great Grandma Deryn and Great Grandpa Gwyn stole the limelight when they took to the floor, dancing to golden oldies from Labrinth, Rihanna and Pharrell Williams. They are both 100 this year. They put us younger ones to shame with their zest for life. When they got married they had a horse drawn cart to take them to the church. Since the oil crisis, horses are making a comeback, and not just at Chepstow races. Cars have smaller engines and many more are electric, now that every 50 miles there are recharging stations.

Dad's team of chefs was responsible for the catering. They used local produce and almost every ingredient was sourced within 100 miles, except for the chocolate truffles (cocoa beans don't grow in Gwent). All that dancing and fresh air certainly gave everyone a healthy appetite, which always pleases Mum somehow. There certainly wasn't much food waste to use for the natural fertiliser wormery she has going on at the bottom of her garden.

Carys threw her bouquet and Nick's best man caught it! Tom is such a good-looking and kind guy – I'm sure he could have his pick of the girls! We waved Nick and Carys goodbye. We piled as much of the rubbish into recycling bags as we could and Grandpa Gareth drove it away, whilst the rest of us either cycled home as the sun set or pitched camp for the night.

It was a fabulous day – one we will always remember.



Tears of Sadness - Bronwen's Story



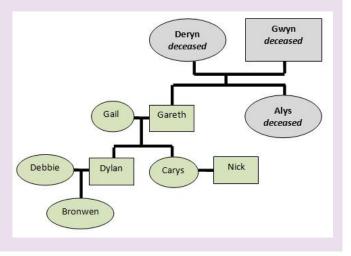
I wish Great Aunt Alys had been here to see this. I still think about her. She would have loved the wedding. Aunty Carys looked amazing. The dress was so beautiful, with pearl edging to her veil. Poor Nick must have lost weight since he bought his suit. And he's got a terrible cough. I don't know much about his lung cancer but I do know they have brought the wedding forward. I was chief bridesmaid. I wasn't entirely happy with my dress, despite numerous fittings. Mum said deep pink was very slimming. I made sure the two little bridesmaids stood in front of me for the photos. They were so cute (if a little bit of a handful during the signing of the register!).

Even though I couldn't eat half of the amazing food as I am supposed to be on a diet, I didn't moan. I think seeing Grandpa Gareth struggling to stand to give his daughter away, makes you appreciate things. The diabetes has taken so much from him. It's a stark reminder of why I need to be careful with my diet and to be more active. I did have a dance with Aunty Carys. She's always up for it, even in her wedding dress! The band was great, even Dad took to the dance floor for the last dance with me! Dad hardly ever gets any exercise; too busy working. I think he'd had a bit too much to drink, (but then it was a wedding!).

It was good to see Mum enjoying herself too. She has been working really hard lately too. She says the staff at the hospital are under so much pressure. They've seen more cancer patients admitted this year than last. Nana Gail was successfully treated there a few years ago, but Great Aunt Alys was not so lucky. It's been a year of worry for Aunty Carys and Nick. Their wedding was just a beautiful reminder of how lucky we all are.

The best man's speech was very emotional. There wasn't a dry eye in the house. Tom has known the family all his life. He talked about the missing members of the family that we have lost through cancer and the fundraising that we've done as a family since. We've raised over four thousand pounds between us through pub quizzes, bake-offs and car boot sales. Of course Tom loves a party. 'Live hard, die hard' is his motto. It may prove to be the case. He's even got it tattooed on his chest. It looks a bit wrinkly now; probably looked better when he first had it done.

Both Nick and Tom used to be heavy smokers but they gave up smoking together when Nick got his diagnosis. Tom obviously hasn't given up the drink though! With retailers on every street selling it so cheap, it's difficult to refuse. He's probably eaten too much of the wrong food in his time too. But true to his spirit, he reminded us that life is short and you have to get your laughs where you can; the stag night being a prime example. I'm not sure that Uncle Nick agreed, having spent the night locked in a mate's Dad's Council minibus in a gorilla costume. At least it's summer, so he didn't get too cold. The mate's Dad had a fright in the morning though. He drove for 3 miles before Nick woke up and the Dad saw a gorilla stretching in his rear view mirror. He nearly choked on his breakfast muffin. Last time he leaves his keys unattended!



'New Beginnings' - Gail's Story



It's not likely we'll be flooded. The flood defences and the systems we have in place have kept us safe so far. Of course it will be sad to leave our lovely energy efficient home. It's just we don't need a 3 bedroom house anymore. It would be lovely to see a family in here again, enjoying it as much as we have. Of course, if we move, we'll make sure we keep in touch with all our friends at the allotment and the community centre. I'll miss my Zumba friends. Gareth says he'll still meet up for a regular ride with his cycling mates though.

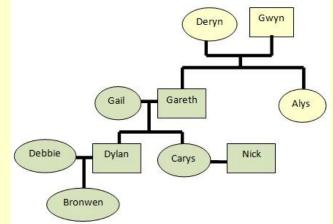
Everyone says how lucky we are to live here. Thanks to joint decision making with the Council, the community chose to redirect money spent on building and maintaining roads into great cycle, train and bus networks. Not only does this mean less traffic issues, but our environment is greener, cleaner, safer, and people are happier. The 10 mph speed limits in towns and the green corridors for cyclists and pedestrians mean more people walk everywhere. Children play outside and, in summer, 'street space' play programmes ban vehicles except for disabled and older people if they need access. Green spaces are protected and valued, not only for the wildlife but for their impact on the communities' physical and mental health. The verges are now filled with wild flowers and green beans and community gardens are in every available space.

It's not just that generally people are more active, they are eating better food. There's a real interest in local produce and resurgence in skills in growing and preparing food. Of course we are spoiled to have a lovely market, where I get fresh local fruit and veg, local cider and, of course, all the latest news from the traders. At Christmas, it's lovely. They put on a 'snow' scene and the village tree is decorated for the kids. A lot of them haven't seen real snow in their lifetime – unless they've been on holiday.

We have a real sense of community here with the school and community centre at the heart of it with lots going on for all ages. Deryn, my mother in-law is at the school this morning hearing children read out loud. My father-in-law helps the children with the school garden and Alys delivers sessions there once a year on '5 ways to wellbeing'. Bronwen loves school because they start every day with PE. They get good results from the traditional, practical and adventure curriculums too. With their own solar panels, garden and forest school it's not like any school I ever went to. Those days of being stuck in front of a white board or tied to a computer screen all day are over. It's good to see the children out enjoying themselves and learning at the same time. Bronwen had a great start at the integrated children's centre over the road. They don't just provide early years education. They support families with child care, parenting classes, breast feeding advice... You name it they do it.

The community centre was a cool refuge during the heat wave and saved lots of lives. I remember the days of food banks. People who had hit hard times would queue up for a food parcel. But these days, we have the garden cooperative now where people learn how to grow and cook food for themselves which impacts all aspects of their life. Housing Associations are fully involved and run 'cook and eat' clubs for residents and local neighbourhoods. People in need are encouraged to become more involved in the community, because sometimes what is missing in their lives, apart from money, is hope, purpose and a sense of belonging. When they have that, it's easier for them to get back on their feet again.

The health centre is next to the park. Our doctor always prescribes a lap of the park, or gardening on prescription. He says that's why his patients are on the lowest levels of medication in Gwent. We are so lucky to live here, but the house is too big for us. Perhaps we should stay and take in a foster child or maybe a refugee or homeless person instead. Only thing – not sure they would cope with Gareth leaving his smelly socks on the landing – how many more years will it take for him to break the habit of a lifetime and find the washing basket?



'Forced to Move'- Gail's Story

We'd lived in that house for 20 years. I used to complain about the damp and how it affected my arthritis. But now, after the flood, I would give anything to have it back how it used to be. But that is not going to happen sadly.

When the flood happened, I remember we had had days of rain. The roads were flooded and the drains were brimming. Flood warnings were issued and by the afternoon people on our street were provided with sand bags and the church and pub had pumps. We didn't know what to expect; certainly not 13 inches of water in the house. We moved upstairs, hoping that the rain and wind would die down. Still the rain came. Roads were closed. Trains stopped running. We lost the electricity. Ironically we had no water to drink for days, and then we had to move out to the community centre for the first few weeks before we got 'rehoused' at the Park and Ride campsite. It was only for a few months whilst the house got back to being liveable, but it wasn't easy with us all living in a caravan. We relied on friends and relatives a lot and went to the leisure centre for showers.

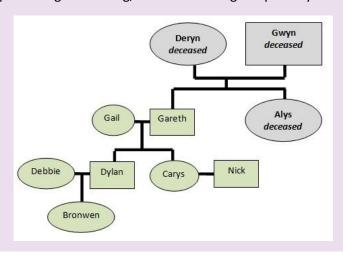
After the floods, we all worked day and night to get the house ready to live in again. We'd saved as much as we could, but there was so much damage. It broke my heart when the flood warnings came again, just over a year later, luckily the storm passed by this time, but the South had it bad apparently.

I felt relief every time we had a dry spell because I thought it would help keep the water table down and dry out the walls of the house. But it wasn't enough. In fact those warm spells brought more trouble; mosquitoes. I used to think the worse thing about mosquitoes was the itching after they bite you. It seems we have alot more to worry about these days. There have been several cases of confirmed malaria reported lately down south in Cornwall and the Channel Islands. I have to say, the free mosquito net we've all been given by the health clinic, does look rather nice over the bed though. Gareth hates it as he forgets it's there and when he gets up in the middle of the night he always manages to get tangled up in it. You've got to laugh – he'd be no use at all in a burglary!

So we've finally decided to move. If we can't sell, we will let the property. Either way it's not good. The house value has dropped. Rental prices have dropped. One good thing I suppose, we don't have as many possessions to move. We lost a lot with the water damage. It's not just things or the money. It's about memories too, photograph albums, and pictures Bron had painted us. Silly really but I hung on to every card and handprint picture she made us when she was little - sadly all gone now. I mustn't grumble, Bronwen is a lovely girl and we still have her - she calls round at least twice a week. She always makes me smile. We'd been in that house since we first got together. There are lots of people in the same position though. One silver lining when we got evacuated, the emergency services were out in the street with the dinghy, rescuing people. We ended up rescuing a little dog, which was being swept away.

We never found his owner so he's still with us - we've called

him Lucky, and he was too!



This public facing document is accompanied by a fully referenced technical Annual Report of the Director of Public Health 2015, which can be found on the Aneurin Bevan University Health Board website: http://www.wales.nhs.uk/sitesplus/866/page/62034