**Wales Cancer Alliance Consensus Paper**

**A Workforce Strategy that delivers for cancer**

**July 2019**

**The Wales Cancer Alliance**

The Wales Cancer Alliancepromotes the best cancer prevention, treatment, research and care for people in Wales. Every year we invest more than £20m in Wales and contribute to the development of national cancer strategy and policy.

We believe that people affected by cancer and their carers should be at the heart of co-creating new services and cancer policy. The third sector has an important role to play in developing, reshaping and delivering improvements in cancer care. We do this by working in partnership with the Welsh Government, the NHS, local government and other stakeholders.

Around 19,000 people are diagnosed with cancer in Wales every year.[[1]](#footnote-1) While survival has improved and just over half of people survive their cancer for 10 years or more.[[2]](#footnote-2) Wales lags behind other comparable countries for breast, colorectal, lung and ovarian cancers.[[3]](#footnote-3)

**The NHS workforce challenge**

Never before has the NHS in Wales been under such pressure. The Welsh NHS Confederation recently published “An average Day in the Welsh NHS” which stated that each day in NHS Wales 220,000 prescriptions are issued, 8,400 outpatient appointments are attended, 150 people will attend for radiotherapy treatment in Velindre Cancer Centre alone and 10,500 inquiries are made to NHS direct. There is no wonder our beloved NHS is under strain.

The beating heart of our NHS is its workforce; our colleagues in NHS Wales are the backbone to delivering treatment and care for 100,000’s of Welsh patients each year. Yet our clinicians and non-medical workforce are leaving in droves and succession planning is not robustly meeting the subsequent shortfall, nor addressing the clinical experience gap needed to deliver the increasingly nuanced care that is required with increasingly frail patients, many of whom present with several comorbidities.

The Wales Cancer Alliance welcomes the establishment of Health Education and Improvement Wales (HEIW) and the focus that this new organisation will provide on the planning, commissioning, and development of education and training for the NHS workforce in Wales. We believe that urgent action is needed to tackle the workforce crisis that is putting strain on the survival outcomes for cancer patients in Wales.

Progress has been made in some areas over the past few years, and the Alliance welcomes the focus and investment that has been made to reconfigure the oversight arrangements for improving endoscopy services in Wales through the development of the Endoscopy Programme Board. The new national imaging academy is also a welcome step forward in being able to develop a new imaging workforce for the future. Similarly, the statement of intent around pathology services is helpful in setting direction of travel.

These are welcome first steps, but much more needs to be done if we are going to build on these foundations to deliver the radical change needed to transform our NHS.

**Our Cancer Workforce and the Cancer Pathway**

**Our health promotion workforce**

Staff working in health services and other partner organisations must be able to provide swift interventions to address some of the cancer behavioural risk factors.

The Public Health Wales Strategic Plan for 2019-22 focuses on ‘promoting healthy behaviours’ as its third strategic priority and contains actions to reduce smoking prevalence, increase physical activity, promote healthy weight and prevent harm from substance use. These activities will help prevent some cancers as well as other conditions such as heart disease, stroke, respiratory disease and dementia. As an Alliance, we welcome and support this focus.

The Making Every Contact Count (MECC) programme aims to empower staff working in health services, and other partner organisations, to recognise the role they have in promoting healthy lifestyles, supporting behaviour change and contributing to reducing the risk of cancer and other chronic diseases.

It is vital that any workforce strategy developed by HEIW includes a recognition that prevention messaging and interventions, no matter how challenging, can and should be delivered by a wide range of stakeholders. Allied workforces, such as pharmacists, dentists, social workers, health visitors, and those who sit in other sectors such as social care and housing, should be equipped through MECC to deliver frontline messages highlighting risk factors for cancer and encouraging healthier choices.

**Our HPV vaccination workforce**

All girls aged 12 to 13 (usually in year 8) are offered HPV (human papilloma virus) vaccination as part of the NHS childhood vaccination programme and later this year the vaccine will be extended to boys at the same age. The vaccine protects against HPV-related cancers such as cervical cancer, anal cancer and cancers of the head and neck. This is excellent news and should save many lives in the future.

Research undertaken by the RCN has highlighted that despite some investment, with competing priorities and an increase in issues such as safeguarding, the school nursing workforce is overstretched, preventing them from being able to undertake some health promoting activities.[[4]](#footnote-4) The School Nursing Framework for Wales (May 2017) states that ‘an opportunity to promote HPV vaccine should be provided in advance of the vaccination session’ and we recommend that every school collaborate across sectors to make a comprehensive education plan around HPV vaccination to educate young people about HPV-related cancers and the vaccine.

**Our genetic workforce**

As our understanding of genetics grows, it is possible to identify more people with a higher genetic risk of developing certain types of cancer (including bowel, breast and ovarian). Once identified, it is vital that people are put onto robust surveillance programmes or are offered the opportunity for preventative treatment or surgery. By ensuring we are delivering the best possible genetic screening for high risk patients, this knowledge will be an additional burden on our overstretched services. Provision needs to be made to address this in Health Board workforce development plans.

**Our cancer screening workforce**

The role of the adult cancer screening programmes is to detect breast, bowel and cervical cancer early. In both cervical screening and bowel cancer screening, opportunities exist to prevent cancer developing. The cervical screening programme is designed to prevent cervical cancer by identifying cell changes before they have a chance to develop into cancer. The bowel screening programme will detect polyps, allowing removal before cancer develops.

In relation to both bowel and cervical cancer, workforce challenges exist as barriers to delivering optimal screening programmes.

In cervical screening, the colposcopy workforce is aging with vacancies in many health boards. Ensuring the colposcopy service is staffed and trained is essential for this preventative measure, especially ensuring those living in remote areas can access such services. Numbers attending colposcopy are also anticipated to rise as a result of HPV primary screening and this must be accounted for.

With regard to bowel cancer screening, the National Assembly’s Health Committee recently held an inquiry into Endoscopy Services in Wales and the impact on introducing the new Feacal Immunochemical Test (FIT) into the screening programme. FIT represents an opportunity to diagnose more bowel cancers at an earlier stage and even prevent bowel cancer through the removal of pre-cancerous polyps. This can be done through the ability to set a sensitivity threshold, above which patients are referred for a colonoscopy.

However, as FIT is being introduced in Wales, with full roll out expected by the end of the summer 2019, this threshold is being set at 150ug of haemoglobin per gram of faeces. This decision was taken to manage demand on endoscopy services rather than on clinical benefit. Furthermore, Wales has the highest threshold (i.e. the least sensitive) of the UK nations to introduce FIT. While there is a target to optimise bowel screening by reducing the sensitivity threshold to 80ug, as well as reduce the starting age for participation from 60 to 50 as per UKNSC recommendations, by April 2023, this is reliant on increasing endoscopy capacity.

In April 2019, the Health Committee reported on the challenges in the current NHS Wales endoscopy workforce and called for swift action to put in place plans to increase endoscopy capacity by October 2019[[5]](#footnote-5). Until we address this challenge, we will continue to deliver a sub optimal bowel screening programme.

**Our primary care workforce**

Shortages in primary care have been widely documented. This includes closures of practices as well shortages of GPs and practice nurses. There are around 18 million primary care contacts in Wales each year. In 2008, the number of GP practitioners in Wales (excluding retainers and registrars) was 1,940. By 2017, this number had actually declined to 1,926.[[6]](#footnote-6)

Both GPs, practice nurses and other community-based colleagues are ideally placed to deliver a wide range of cancer prevention interventions as well as ensuring adherence to latest NICE guidance in relation to referral. Primary care is the main route to diagnosis and once diagnosed, it is the primary care workforce that are increasingly supporting patients as they live with cancer as a chronic condition or are left with the consequences of treatment.

As an example, recently published updated NICE Guidelines for prostate cancer (April 2019) recommend that patients on watchful waiting, active surveillance and after active treatment should be managed and monitored in primary care. There are also a number of supported self-management programmes now available, supporting patients to manage their own condition and side-effects through primary care.

Alongside investing in sufficient numbers of GPs and practice nurses, it is also vital we ensure GPs have the training and support needed to refer patients on when they present with symptoms that could indicate a cancer diagnosis. The most recent Wales Cancer Patient Experience Survey found that one in five of those patients who visit their GP prior to diagnosis, visit three times or more before being referred for diagnostic tests.[[7]](#footnote-7) It is vital we continue to invest in continuous professional development training in cancer and decision support tools to ensure all GPs have the tools they need to identify possible cancer symptoms.

**Our cancer diagnostic workforce**

It is well recognised that diagnosing cancers at an earlier stage, when they are more treatable, improves survival. For the 8 most common cancer types combined, survival is more than 3 times higher for those diagnosed at an early stage compared to a late stage.[[8]](#footnote-8) In Wales, early diagnosis is a mixed picture. Around 85% of breast cancers are diagnosed at Stage 1 or 2, while this drops to 42% for bowel cancer, and just 28% for lung cancer.[[9]](#footnote-9)

Wales lags behind many other countries in terms of cancer outcomes. Diagnosing more cancers earlier will require more cancer tests. However, demand on diagnostic services is already set to increase as cancer incidence rises, with an expected 25,000 diagnoses by 2035 in Wales. This is, in part, due to an ageing population. Therefore, it is essential that there is sufficient capacity in Welsh diagnostic services, with an adequate workforce a key component of this.

It is important to recognise that Welsh Government and NHS Wales have made earlier diagnosis of cancer a priority. There are several initiatives in development as a result, including the introduction of the Single Cancer Pathway in June 2019 and trialling new models of care, such as the two rapid diagnostic clinic pilots in South Wales. However, such measures are at risk of not maximising their potential if gaps in the workforce restrict overall diagnostic capacity.

While data on the diagnostic workforce is patchy, we are aware of significant gaps across Wales, including:

* Radiology – 30% of consultants are expected to retire by 2021.[[10]](#footnote-10)
* Radiography – there is an overall vacancy rate of 9%, rising to 36% for band 4 radiographers.**[[11]](#footnote-11)**
* Endoscopy – approximately 1 in 10 nurse endoscopy posts are vacant.[[12]](#footnote-12)
* Cellular pathology – just under 30% of consultant histopathologist posts are vacant, while 36% of the consultant workforce are expected to retire in the next 5 years.

These gaps are already having a significant impact on diagnostic capacity and on people affected by cancer. One such example is the introduction of the new faecal immunochemical test (FIT) in the bowel screening programme. (see screening section above)

As well as establishing the National Endoscopy Programme, the Welsh Government launched the Imaging Academy in February 2019, with £3.4m investment. Such an innovative training approach could see 20 radiologists trained each year although only 13 places have been filled for this year. It is important that the Academy operates at full capacity and involves other imaging specialists to have the greatest effect on reducing workforce gaps in the medium to long-term.

In addition, safe and effective high-quality pathology services are dependent on having the right number of staff to deliver services. Demand for pathology services has grown significantly in recent years and if we are able to deliver prompt diagnosis and insight into tumour pathology to help inform treatment decisions.

Histopathology shortages across the UK have been widely identified and, as outlined above some Health Boards face significant challenges in recruiting and an aging workforce. The Royal College of Pathology Wales Regional Council Workforce Report for Histopathology highlights the fact that 26% of Consultant posts are vacant. There is a need for ongoing redesign of the service with more funded training.

Such gaps in the diagnostic workforce are not unique to Wales and similar challenges are faced by other UK nations. Hence, while increasing training places is important, new ways of working need to be introduced to increase diagnostic capacity. Adopting a national approach to skills mix means using existing staff more effectively. For example, non-medical endoscopists can perform some tests to free up consultant time.

Finally, while cancer places a large demand on diagnostic services, addressing workforce gaps will have benefits far beyond cancer, given the number of health conditions that require diagnostic testing. It is critical that the diagnostic workforce is considered a priority for the forthcoming workforce strategy, led by HEIW and Social Care Wales.

**Our cancer treatment workforce**

Once a patient receives a cancer diagnosis, they will begin a treatment plan that could involve any combination of: surgery; chemotherapy; radiotherapy; immunotherapy; and other ongoing treatments. While a round of active treatment would in the past typically end following surgery/radiotherapy/chemotherapy delivery, it can now extend until disease progression, placing additional pressures on both the immediate and wider cancer workforce. For example, there is both the administration of maintenance and immunotherapy treatments and also regular checks for adverse events and disease progression. To deliver this requires a complex and well-defined workforce that works together to ensure that patients have timely access to the best available treatments, regardless of whether their care aims to be curative or palliative.

Similarly to the diagnostic workforce, the data on the treatments workforce is limited. Often, local health boards plan workforce needs based on available resource rather than on clinical and patient need. As such, vacancy rates do not always give the full picture of gaps in the treatments workforce across Wales.

Most recently, the Royal College of Radiologists warned that workforce shortages in clinical oncology risk patient experience and care. Only 3 new consultant posts joined NHS Wales between 2013 and 2018, representing the smallest increase across the UK, while 12% of posts in Wales are vacant.[[13]](#footnote-13) This is against the backdrop of increasing cancer incidence.

Across the UK, 73% of respondents to a Cancer Research UK survey of the cancer treatments workforce identified staff shortages as a barrier to providing efficient cancer treatments and excellent patient experience.[[14]](#footnote-14) This results in:

* Insufficient capacity to undertake clinical research
* Deteriorating patient experience
* Missed opportunities for service improvement
* Less frequent sharing of best practice with other cancer treatment providers
* Lack of capacity to build long-term plans
* Inefficient use of the workforce’s skills and experience
* Decreased staff wellbeing and morale, and increased working hours

Furthermore, changes to the way we treat cancer in the future will require more staff to deliver world-class care. Some examples of such changes include:

1. Changes in treatments: the growth of hypofractionation, IMRT, SABR and proton beam therapy will affect the resources required to treat patients using radiotherapy.
2. Development of new technologies: new software will help automate some work. However, some new technology makes the treatment techniques more complex and time-consuming to plan.
3. Changes to treatment delivery: some treatments will be delivered through networks. This will affect where staff is needed and how they will be working within Wales.
4. Changes in the duration of treatment: treatment that might previously have been concluded within six to twelve months can now last for years.

In line with diagnostics services, taking a skills-mix approach to the treatment workforce can alleviate some of this pressure. Training advanced clinical practitioners and non-medical professionals to assist with tasks such as treatment reviews and planning would add capacity. However, it is important to note that consultants would require time to train such professionals, in addition to their existing workload. This focus on the need to provide adequate time for training supervision needs to be built into all aspects of workforce planning in the future.

**Our cancer specialist nursing workforce**

The 2016 Wales Cancer Patient Experience Survey (WCPES) finds that “patients with access to a cancer nurse specialist (CNS) reported having a significantly better experience. This was true for 73 out of 74 questions, even covering areas of care where a CNS might not traditionally be expected to have an involvement.” The Alliance expects the 2019 survey to have similar findings.

The 2016 WCPES found that 81% of patients reported having access to a CNS, leaving one in five patients without support. It also found further areas for improvement, with just 48% of patients offered the opportunity to discuss their needs as part of development of a care plan and only 64% of patients reporting it as easy to contact their CNS.[[15]](#footnote-15)

The Cancer Delivery Plan for Wales recognises that ‘key workers’ can make to a patient’s care and that key workers are normally cancer nurse specialists. In its ‘Meeting People’s Needs’ section it commits to ensuring that patients consistently have access to a key worker as a key element of the ‘recovery package’. The findings of the WCPES show the difference in access to a CNS makes and the further work needed to ensure all patients can access a CNS together with the importance of ensuring CNSs are adequately resourced to provide the wrap around care valued by patients.

**Our CNS staffing levels**

Macmillan Cancer Support commissioned censuses of the cancer specialist nursing workforce in 2014 and 2017. Between 2014 and 2017, they found that the workforce increased from 184 to 250 WTE specialist cancer nurse roles, although these numbers are not directly comparable it suggests a positive trend. The proportion of these nurses over the age of 50, and so closer to retirement, also fell over this period from 53% to 42%.

In 2016 the Government passed the Nurse Staffing Levels (Wales) Act. This was an important piece of legislation in ensuring that cancer nurse specialists have the time they need to spend with cancer patients.

However, there is increasing pressure on staffing levels. The Wales Audit Office recently published a report on agency staff expenditure which highlights the £52m paid for agency nurses and midwives in 2017-18. It suggests that the Nurse Staffing Levels Act and the lack of a significant pay increase for NHS workers in Wales are significant factors contributing to nurses leaving the NHS to work for an agency. This can have implications for the important role that cancer nurse specialists play in guiding patients through the cancer journey.

Currently only 1% of CNSs in Wales are from EU Countries so Brexit would be unlikely to have an immediate impact on staffing numbers.[[16]](#footnote-16) However, there are 4.4 vacancies per 100 filled employee roles for CNSs, which is higher than the UK vacancy rate and this has increased since 2014.[[17]](#footnote-17) In the meantime, the number of UK trained nurses on the register have declined since 2016 and nearly 3,000 EAA nationals left the register.[[18]](#footnote-18) Consequently, the current Department of Health and Social Care “worst case scenario” model predicts a shortage in the UK of between 26,000 to 42,000 nurses (full-time equivalents) by 2025/26 (Gallagher, 2018). Therefore, while Brexit may not have an immediate impact on the CNS workforce in Wales, in the longer term it is likely to further exacerbate workforce shortages.

A significant part of CNSs’ time is taken up by administrative work. Band 4 navigator or support roles should be created to support CNSs in triaging and administrative responsibilities. This would include simple questions and requests, freeing up CNS time for the more complex work they have the specialist skills to deliver. This would ensure that limited resources are spent in the most impactful way possible.

**Our Paediatric and young adult cancer workforce**

Around 235 0-24 year-olds are diagnosed with cancer in Wales each year, with many more on active treatment at any one time. Although survival rates are relatively high, around 80%, cancer remains the single largest cause of death from disease for this age group.

Because children and young people’s cancer is rare, cancer treatment for this age group is specialised. Cancer services for children and young people focus expertise in age appropriate, specialist treatment centres across the UK and are supported by other services that are delivered closer to families’ homes (shared care centres for children and designated centres for teenagers and young people).

There is a network of specialist hospitals known as Principal Treatment Centres (PTC), for diagnosing and treating children’s and teenage or young adult cancers across the UK.

Children up to the age of 16 will typically receive their cancer treatment at a principal treatment centre. In some cases, children may also receive some treatment at a local hospital. This is known as ‘shared care’. Young people aged 16 and over have more choice about where they receive treatment. They may receive treatment in a PTC, however if appropriate they may choose a hospital closer to home at a shared care centre or at their district general hospital.

In South Wales all services are delivered by the Noah’s Ark Children’s Hospital in Cardiff and supported by shared care hospitals across the region. In North Wales all services are delivered by the Alder Hey Children’s Hospital in Liverpool and supported by shared care hospitals across North Wales.

The psychosocial impact of cancer on children and young people with cancer can be significant and to help with managing this it is crucial that they receive age appropriate specialist support. With a need to support the unique needs of young cancer patients, there must be an effective paediatric and young adult cancer workforce.

A wide range of professionals will be involved in the diagnosis, treatment and care of young cancer patients and their families – GP’s are a key part of young cancer patients’ experiences.

Early cancer diagnosis is critical to ensure treatment starts as soon as possible and to give a child or young person the best chance from the start. Children and young people are overrepresented in those cancer patients who are diagnosed through emergency admission. We know that children make up the highest proportion of cancer patients that are diagnosed through emergency admissions (though not what impact that has) and that many young people and parents have a poor experience of diagnosis. CLIC Sargent’s *Best Chance from the Start* (UK wide) research report on experiences of diagnosis (2016) found that:

* Over half of young people and almost half of parents visited their GP at least three times before their cancer diagnosis. Nearly half of young people felt their GP did not take their concerns seriously and a third of parents felt their GP did not take into account their knowledge of their child. Just over a third of young people and a quarter of parents felt that their GP did not have enough time to listen to them talk about their symptoms.
* A third of parents and just over half of young people felt their diagnosis was delayed. Of those, almost half felt that this perceived delay impacted on their prognosis. They also reported losing trust in their GP.
* Almost half of GPs polled said that lack of training opportunities is a barrier to identifying childhood cancer and more than half said discussions about specific cases with experts, such as paediatric specialists, would help them to identify the need to investigate whether a child or young person had cancer

In light of this, CLIC Sargent and Teenage Cancer Trust teamed up to create an e-learning module for healthcare professionals on the signs of cancer in children and young people. This was developed in partnership with the Royal College of GPs. We would like to see more support for the NHS workforce in recognising the signs of childhood and young adult cancer and knowing when to refer suspected cancer.

**Our end of life care workforce**

In developing a workforce strategy that is fit for purpose, it is critical that full account is taken of the increase on demand for end of life care in Wales

We know that increasing numbers of people are dying, with the number set to rise by 9% over the next 25 years in Wales.[[19]](#footnote-19) We also know that the number of cancer diagnoses is rising, with an increase of 14% over the next ten years.[[20]](#footnote-20)

As more people are being diagnosed with cancer, and more people are dying, we will also see an increase in the number of patients being treated for multiple conditions, during end of life care. This complexity of end of life care in the future will impact on the skills required across all specialities. We would like to see an exploration of the extent to which cancer specialists need further training and support to enable them to better support complex care pathways for people with increasingly complex needs. A key element of this will be the capacity of cancer care professionals to support an individual in their Advance Care Planning.

Due to the rise in numbers of patients requiring end of life care, we would also like to see this, and other workforce strategies specifically address the question of whether current specialist palliative care capacity (both doctors and nurses) is sufficient to meet rising future needs.

**Conclusions and recommendations**

In considering the development of an all Wales workforce strategy for health, the Wales Cancer Alliance recognises the pressures under which the existing workforce is delivering. With unprecedented demand, it is not realistic, nor appropriate to keep investing more and more money to continue to deliver services as they have always been delivered. In training and employing more staff, consideration must be given to utilising existing staff more effectively.

By adopting skill mix approaches and remodelling services, the future for healthcare delivery in Wales should be viewed with cautious optimism. The NHS is a wonderful establishment, the commitment of our current workforce is not in question and as an Alliance, we view ourselves as a vital partner in championing our clinical community and supporting them to deliver the best possible care for cancer patients

The Cancer Delivery Plan in its current form comes to an end in 2020, as an Alliance we wish to see a renewed commitment from Welsh Government and NHS Wales to develop a bespoke strategy for cancer. The new clinical plan for Wales also gives us an opportunity to take a fresh approach to service delivery and we would expect HEIW’s ambitions for a dynamic future NHS workforce to be front and centre in both new plans.

To conclude, we have outlined the following recommendations for HEIW to consider as it seeks to develop its workforce strategy that will help deliver the best possible outcomes for cancer patients in Wales.

**Recommendation 1**: Public Health Wales must ensure that there is a robust workforce plan, integrated across Health Boards and other services, to deliver effective interventions such as smoking cessation, the National Exercise Referral Scheme and, alcohol and addiction recovery services.

**Recommendation 2**: That HEIW ensures that Make Every Contact Count training is incorporated across all workforce training plans to ensure that all relevant colleagues are supported to be able to provide challenging interventions when opportunities for behavior change conversations arise.

**Recommendation 3:** That HEIW prioritise the diagnostic workforce. Only by diagnosing more people in the early stages can we make the biggest impact on cancer mortality. It is vital that HEIW support the implementation of the recommendations made by the Health Committee Inquiry into Endoscopy Services in Wales.

**Recommendation 4:** That HEIW supports succession planning for Cancer Nurse Specialists as they are pivotal in supporting patients through the cancer pathway.

**Recommendation 5:** That HEIW tackle succession planning and review the Cancer CNS career path to ensure that it is made more attractive as an incentive for new nurses looking to join the workforce, and that opportunities for career progression and entry into specialisms are promoted to current nurses, with time made available to enable them to have the relevant training.

**Recommendation 6**: Job planning for skill mix should be optimised as a matter of best practice. By introducing band four support workers into the workforce, senior nursing colleagues will be freed up to better support people with increasing complex health issues, delivering a higher standard of care and ultimately better outcomes for people affected by cancer.

**Recommendation 7**: Due to the specialist nature of the psychosocial impact of cancer on children and young people, it is essential that they receive age appropriate specialist support. It is vital that HEIW support the development of an effective paediatric and young adult cancer workforce and ensure that specialist toolkits to support earlier diagnosis are used as a training resource for healthcare professionals.

**Recommendation 8**: To ensure that the existing workforce is trained to deliver complex palliative care interventions and to review whether there is capacity in existing roles to be able to deliver the level of care that is required.

For further information about the Wales Cancer Alliance or to get in touch, please visit our website: [www.walescanceralliance.org](http://www.walescanceralliance.org)

**Contact**: Chair@walescanceralliance.org

1. Based on the number of new cases of all cancers (ICD10 C00-C97) excluding NMSC (C44) diagnosed in Wales in 2015 [↑](#footnote-ref-1)
2. <https://www.cancerresearchuk.org/sites/default/files/wales_profile_2018_english_v3.pdf> [↑](#footnote-ref-2)
3. Cancer survival in Australia, Canada, Denmark, Norway, Sweden, and the UK, 1995–2007 (the International Cancer Benchmarking Partnership): an analysis of population-based cancer registry data [↑](#footnote-ref-3)
4. <https://gov.wales/sites/default/files/publications/2019-03/a-school-nursing-framework-for-wales-may-2017.pdf> [↑](#footnote-ref-4)
5. National Assembly for Wales, Health and Social Care Committee, Endoscopy Services in Wales, April 2019 [↑](#footnote-ref-5)
6. <https://gov.wales/gp-numbers> [↑](#footnote-ref-6)
7. Wales Cancer Patient Experience Survey 2016. [↑](#footnote-ref-7)
8. Based on data calculated in England. Public Health England demonstrated that, for the 8 most common cancers combined, when diagnosed at an early stage (I and II) survival was 81%, falling to 26% when diagnosed at later stages (III and IV) [↑](#footnote-ref-8)
9. Wales Cancer Intelligence and Surveillance Unit (2015), Cancer Incidence by Stage at Diagnosis in Wales 2015. [↑](#footnote-ref-9)
10. Unless otherwise stated, data for clinical radiology taken from the latest RCR Clinical Radiology Workforce Census (2019) <https://www.rcr.ac.uk/system/files/publication/field_publication_files/clinical-radiology-uk-workforce-census-report-2018.pdf> [↑](#footnote-ref-10)
11. Unless otherwise stated, data for clinical radiology taken from the latest RCR Clinical Radiology Workforce Census (2019) <https://www.rcr.ac.uk/system/files/publication/field_publication_files/clinical-radiology-uk-workforce-census-report-2018.pdf> [↑](#footnote-ref-11)
12. Bowel Cancer UK (2018), written evidence to the Health, Social Care and Sport Committee Inquiry into Endoscopy Services <http://www.senedd.assembly.wales/documents/s81222/Paper%201%20-%20Bowel%20Cancer%20UK.pdf> [↑](#footnote-ref-12)
13. <https://www.bbc.co.uk/news/uk-wales-47584063> [↑](#footnote-ref-13)
14. Cancer Research UK (2017), Full Team Ahead: Understanding the UK non-surgical cancer treatments workforce, <https://www.cancerresearchuk.org/sites/default/files/full_team_ahead-full_report.pdf> [↑](#footnote-ref-14)
15. Wales Cancer Patient Experience Survey 2016. [↑](#footnote-ref-15)
16. Macmillan (2018) Cancer Workforce in Wales. [↑](#footnote-ref-16)
17. Macmillan (2018) Cancer Workforce in Wales. [↑](#footnote-ref-17)
18. Nursing and Midwifery Council (2019) The NMC register [↑](#footnote-ref-18)
19. Marie Curie, (2015). *Triggers for Palliative Care, Implications for Wales* [↑](#footnote-ref-19)
20. GPone.wales.nhs.uk. (2019). GP-one | Rise in cancer numbers in Wales continues. [online] Available at: http://www.gpone.wales.nhs.uk/news/40274 [Accessed 6 Jun. 2019]. [↑](#footnote-ref-20)