Minister for Environment, Energy and Rural Affairs

Climate Change, Environment and Rural Affairs Committee, 20 November 2019

Introduction

The Welsh Government launched a refreshed bovine TB Eradication Programme in October 2017. Around the same time, the Climate Change, Environment and Rural Affairs reported on bovine TB. I believe good progress has been made with the implementation and delivery of our refreshed approach and also with regard to the Committee's recommendations which were entirely in keeping with our vision for eradication.

In April I reported to the Assembly on progress made during the first calendar year of implementation. My Statement included an update on the disease situation and progress made against the actions outlined in the TB Delivery Plan, along with new policies, such as those initiated in the Intermediate TB Area North in response to a sustained spike in new TB incidents. I also set out further enhancements under consideration, such as seeking to reduce the number of cattle shot on farm, and a review of the TB compensation arrangements.

Disease picture

At the time of writing, the latest available TB figures cover the twelve months to June 2019.

1. The number of new TB herd incidents has remained steady compared to the previous twelve months, however, the number of open incidents has increased by 6% (Annex 2- Figure 1). Increased surveillance in unconfirmed breakdowns and high sensitivity testing in persistent herds has meant herds are under restriction for longer.

2. The number of new herd incidents per 100 tests in unrestricted herds (incidence) between July 2018 and June 2019 has remained steady compared against the previous twelve months.

3. The number of restricted herds per 100 live herds (herd prevalence) has increased by just under 2% (Annex 2- Figure 2).

4. The number of animals slaughtered for TB control purposes has increased by 23% in the latest twelve months compared to the previous 12 months. The majority of this increase (55%) is attributable to a rise in gamma testing to increase the sensitivity of testing in persistent herds. There has been a rise in the number of skin reactors (23%) and first-time inconclusive reactors and dangerous contacts (18%) (Annex 2- Figure 3). This is largely caused by the increased surveillance and test sensitivity rather than an upsurge in the epidemic.

Recent trends should be interpreted with caution and in the context of the long term trajectory and sustained improvements achieved over the last 10 years.

Progress against eradication milestones and targets

The 2017 Wales Eradication Target & Milestones policy statement set out the overall target for reaching TB free status for Wales by 2041 and defined a number of regional milestones towards TB eradication. The entire 24-year time span leading up to the eradication date was divided into six-year quartiles which also serve as review intervals. Other, shorter review intervals are considered when necessary. The plan was based on the geographic division of Wales into Spatial Units and TB Areas, rather than administrative counties.

Annual herd incidence trends are compared with the trajectory required to achieve eradication or milestones set out for the first quartile (2017-23) of the eradication plan. Spatial units can then be earmarked for transfer to a lower risk designation. On current evidence, two (CE4, CL3) of the three Spatial Unit transfer targets have shown incidence trends consistent with a transfer to a lower risk designation. However, PN1 Spatial Unit does not look likely to meet the threshold required in this current quartile (Annex 2 – Figure 4). At least one further Spatial Unit (PS1) can be transferred from the High TB Area East to I Mid. On the evidence of the last 18 months, herd incidence is 15% below that of the previous six years.

Disease prevention and breakdown management

- TB regionalisation of Wales

A fundamental change to the way in which we tackle bovine TB in Wales began in October 2017, with the introduction of a regionalised approach to TB eradication. This step change resulted in Wales being divided into five TB Areas based on three levels of disease incidence: a Low TB Area, two Intermediate TB Areas and two High TB Areas. This approach allows tailored and bespoke policies to be implemented in each TB Area to reflect the varied epidemiology and drivers of disease which are specific to each area and allows focus to be given on regional priorities, for example keeping TB out of the Low TB Area.

- Persistent TB breakdowns

We continue to learn lessons from the implementation of bespoke Action Plans in persistent TB breakdowns, lasting 18 months or more. Policies within Action Plans are subject to continuous monitoring and review by epidemiologists and vets to ensure the right approach is being taken to eliminate TB in these long standing TB breakdowns. We continue to refine our approach to ensure policies are properly aligned with the risks, and also are proportionate to the disease situation on each farm.

Since the start of the Action Plan intervention policy, restrictions have been lifted in 38 persistent breakdowns with Action Plans. 12 of these (8/21 in High West; 3/14 in High East, 1/2 in I Mid) have subsequently seen recurrence of disease. These recurrence rates are lower in comparison to similar herds who do not have action plans. Resolved persistent breakdowns with action plans have a lower incident rate compared to other closed breakdowns in the High TB Area. This indicates that we are making progress in eradicating the diseases in some of the most complex TB breakdowns.

- Informed Purchasing

We continue to highlight the importance of making wise purchasing decisions, currently encouraging requests for TB history when selecting cattle a voluntary basis. However, it is clear with 8 in 10 breakdowns in the Low TB Area and 3 in 10 in the High TB Areas being primarily attributable to purchased animals, a voluntary approach is not working. We are continuing to invest in technology to enable farmers to obtain TB information to inform their purchasing decisions, with the development of the website ibTB and alongside Defra, the Welsh Government is developing proposals for a mandatory system. A consultation and legislative changes will be required once clear proposals have been developed.

- Cymorth TB

From September 2019 any farmer eligible for a Cymorth TB visit will receive one, unless they actively opt out of the offer.

The Welsh Government recognises the impacts of TB for farming families and businesses. The Farming Community Network has started to develop advice, support and signposting to farmers, however, uptake has been very low. To address this, my officials are working across departments and with the Third Sector to consider an agriculture-wide provision of mental health and wellbeing services for Welsh farmers, where the focus is not purely on TB.

- On farm slaughter of TB reactors

I have listened to concerns raised by the industry around aspects of on farm slaughter. On farm slaughter is sometimes unavoidable, for example where cattle cannot be transported because heavily pregnant, for welfare reasons or because of being in a medication withdrawal period and can therefore not enter the food chain.

We are working with industry and the veterinary profession to explore options to reduce the number of TB cattle needing to be slaughtered on farm. A pilot starting early next year, will allow farmers to request on farm euthanasia by lethal injection under certain circumstances.

- Expanding the portfolio of diagnostic tests.

The Welsh Government has increased the use of supplementary blood testing to improve the detection of TB infected cattle. Last year 57,000 gamma-interferon tests were carried out, double the number performed three years earlier. Where concurrent Johne's disease is thought to be reducing test sensitivity a flexible extended gamma-interferon test is used. In persistent herd breakdowns the IDEXX antibody test is also used to target high risk animals which may not be responding to the skin or gamma interferon tests.

The Welsh Government has developed and introduced a protocol for the use of non-validated TB tests in TB breakdown herds. For example Actiphage, a diagnostic test which identifies the presence of TB bacteria in blood or Polymerase Chain Reaction

(PCR) which can identify bacterial DNA in environmental samples. This is aimed at supporting test development and enabling cattle keepers and their own vets to gain additional information about the possible infection status of animals within their herds.

Wildlife:

- Badger interventions

In some TB breakdowns where the view is that the transmission of infection between badgers and cattle on the farm is contributing to the disease persistence the badger trap and test operations are taking place with the consent of the landowners on farms that meet the criteria set.
The latest APHA report on the delivery of badger trap and test operations on chronic TB breakdown farms in Wales in 2018 has now been published https://gov.wales/sites/default/files/publications/2019-07/bovine-tb-badger-trapping-and-testing-on-chronic-tb-breakdown-farms-2018.pdf

Badger trap and test operations were undertaken on 6 farms in 2018, and a total of 120 individual badgers were caught and sampled. Two phases of trapping were conducted on three of the farms. Some badgers were therefore caught and sampled more than once, resulting in 165 sampling events in 2018. The 165 sampling events resulted in the euthanasia of 26 animals; 22 due to a positive field DPP test result and four which had been caught previously and released but had subsequently produced a positive laboratory result.
On 139 occasions the animal was released (137 tested negative to the field DPP, while two could not be tested because it was not possible to obtain a blood sample). Of the 137 occasions which resulted in negative tests, 112 badgers were vaccinated before release. On the remaining 25 occasions the badgers had been vaccinated at a previous sampling event and released without any further action.

- Badger Found Dead Survey

We continue with the Badger Found Dead survey and results are feeding into the wider programme. In the Low TB Area of North Wales, the figures from the All Wales Badger Found Dead Survey suggest badgers are not contributing to the disease.

- Vaccination update

A Badger Vaccination Grant is available to provide farmers, landowners, and other organisations with the opportunity to apply for financial support (up to 50%) towards badger vaccination against bovine TB, over 5 years.

Since the beginning of May this year (2019) the grant has allowed for the vaccination of 185 badgers over a total area of 30.72^{2}km.

- Gower project

The Welsh Government works with the South East Wales Regional Eradication Board who are currently introducing a programme of badger vaccination on the Gower. This is a great example of cooperation between farmers, local veterinary practices, research team, the National Trust and Welsh Government. There are also plans to introduce enhanced biosecurity and cattle control measures which together with the vaccination of badgers aims to drive down levels of infection reducing the number of cattle breakdowns in the area. Lessons learned can then be fed into further development of the national eradication programme.

The Bovine TB Centre of Excellence

A new Sêr Cymru Centre of Excellence for Bovine Tuberculosis for Wales is bringing together international expertise with the aim of eradicating the cattle disease opened at Aberystwyth University in 2018. The Centre aims to grow and develop academic research expertise in Wales.

The Centre is led by Professor Glyn Hewinson who already has strong links with the Welsh Government through his previous roles within the Animal and Plant Health Agency (APHA). Most recently, the Centre hosted its first TB Conference which focussed on both current and future TB tests for use in cattle and in the environment.

Lesley Griffiths AM
Minister for Environment, Energy and Rural Affairs

November 2019

Annex 1

Welsh Government response to the report of the Climate Change and Rural Affairs Committee on the Refreshed TB Eradication programme.

Recommendation 1

The Committee recommends that the Welsh Government should set a national target date for Wales to be officially TB free and provide clarity on the process for achieving this.

Recommendation 2

The Welsh Government should set interim targets for the eradication of the disease in each of the three TB regions – high, medium and low.

Response to 1 & 2

In October 2017 the TB eradication programme in Wales implemented a regionalised approach in which Low, Medium and High TB Areas were defined, allowing interventions applied to be tailored to the disease situation specific to that area. In common with many other aspects of the programme, the impact of this approach and of the interventions contributing to it are being monitored and the continued evolution of the programme will be informed by what is learnt from the results.

This regionalised approach is reflected in the TB targets adopted in December 2017. This ambitious initiative aims to see Wales become officially TB free by 2041. Interim targets, covering consecutive six-year periods, have been set for each of the TB Areas. This approach provides for defined areas to achieve and maintain TB freedom at different points in time, seeking to create an ever-expanding area of TB freedom in Wales and the momentum that would come with this.

Recommendation 3

The Welsh Government should carry out more research into the possible risks of spreading TB from larger herd sizes and slurry management practices. Being able to include advice on both of these issues in guidance from the Welsh Government would enhance the support offered to farmers in dealing with this disease.

The possible risk that TB could be spread through the application of slurry on agricultural land is a high profile issue and evidence is required to inform policy development. Working with the Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA) and the Department of Agriculture, Food and the Marine (DAFM) in Ireland, Defra (including Welsh Government) has funded a study to gather evidence regarding the prevalence and persistence of viable *M. bovis* in slurry and similar matrices. The outcomes of this are due towards the middle of 2020.

Recommendation 4

The Welsh Government should maintain a watching brief and explore all options for an effective testing regime which is proportional to the risks identified.

The tuberculin skin test remains the foundation on which the cattle testing programme is based. Wales has led the way in the targeted use of the interferon gamma test as a complementary test. Recently, in persistent breakdown herds, the flexible-extended gamma interferon test and the IDEXX Antibody test are also used to detect infected animals, which may otherwise be masked by the presence of other mycobacteria, or are eliciting an antibody immune response, rather than the more usual cell-mediated response.

The programme remains fully engaged both with the GB TB research and development programme - Sêr Cymru Centre of Excellence for Bovine TB and with individual test developers in order to ensure that it makes the best use of those tests which have been robustly demonstrated to offer additional benefits in terms of the testing portfolio.

The targeted use of tests best suited to specific circumstances has always been, and will remain, a fundamental component of the eradication programme. The regionalised approach very much reflects this, providing for the use of different combinations of tests in different disease situations.

Recommendation 5

The Welsh Government should engage industry as far as possible in the development of an online biosecurity package to ensure that Welsh farmers can develop farm-specific measures that will add value to its efforts to control and eradicate the disease.

Biosecurity has always formed a key part of our eradication programme. Following consultation, the Welsh Government committed to developing a standardised online package to help farmers implement improved husbandry and biosecurity practices. We are now in the process of developing a biosecurity app with an Industry Group. Industry led plans are underway to pilot the app on a range of Welsh farms with the intention of making it more widely available once properly user tested.
Guidance on biosecurity standards has also been developed and is available on the Welsh Government website. Further to this, developments are underway to extensively improve the already established TB Hub website to cover Wales' needs, and this will include a wide range of biosecurity advice.

Recommendation 6

The Committee supports the Welsh Government's proposal to encourage Informed Purchasing, also known as Risk Based Trading. A system of Risk Based Trading should be taken forward voluntarily in the first instance with the industry and livestock markets. This should be kept under review and, if necessary, introduced on a mandatory basis.

Risk Based Trading schemes in New Zealand and Australia have greatly contributed to TB eradication. We have already offered grant funding to livestock markets to allow them to update equipment to display TB information. I also encourage farmers to sign up to a Cattle Health Certification Standards (CHeCS) TB scheme as this will help buyers minimise the risk of introducing disease to their herd and herds classified as the lowest risk will be exempt from some of our TB controls.
The ibTB mapping tool is a useful way for farmers to better understand the disease picture in their area where they are sourcing cattle from. Work is underway to enhance the site to make it a more useful informed purchasing tool.
These voluntary approaches will be kept under review. In the long-term it is likely only the introduction of a mandatory system will ensure that TB information is provided at the point of sale. We are therefore exploring ways this can be introduced in conjunction with Defra.

Recommendation 7

The Welsh Government's proposals to introduce targeted badger removal in cases of chronic breakdown herds must be scientifically monitored and reviewed and either adapted or stopped if it is shown that is does not prevent the transmission of Bovine TB from wildlife to cattle. Any measures taken on a trial basis must include hard borders and adequate safeguards against the risk of any possible perturbation of the wildlife population.

The Animal and Plant Health Agency (APHA) were commissioned to estimate the proportion of the target population of badgers trapped on each farm and to attempt to detect any signs of social perturbation arising from these small scale interventions. The choice of methods available was limited by the need to confine all field activities to the target farm, therefore data collection focused on genotyping hair samples from hair traps and captured badgers on the three farms where badger trap and test operations were undertaken in 2017.

The attached report details the methodology applied and analysis of the results. https://gov.wales/bovine-tb-badger-trapping-and-testing-chronic-tb-breakdown-farms-2018

The genetic profiles were successfully extracted from the majority of hair samples from trapped badgers suggesting high trapping efficiency on three respective farms, but it was not possible to draw any conclusions regarding social perturbation. This was mainly due to the small scale of the interventions. That will remain a significant challenge.

Therefore we are aware of the limitations of this method and the inconclusive results produced, we are looking to monitor for perturbation by proxy using cattle data. APHA are capturing information on the long term efficacy of the policy and its impact on disease and aim to monitor cattle disease parameters (herd level & animal level). They will continuously gather data and monitor when sufficient data is available. This will be done by comparing case herds against control herds. This data will be gathered using existing APHA systems but again it is not known for how long this would need to take place nor how many match pairs would need to be compared.

Whole genome sequencing of M. bovis isolates from infected badgers as well as infected cattle will improve our understanding of infection transmission on the farms.

Recommendation 8

The Welsh Government should report to the Committee 12 months after the programme of targeted badger removal begins to present its findings. We expect the Welsh Government to make its data publicly available in order to ensure transparency in their decision-making and review processes.

The APHA report on the delivery of badger trap and test operations on chronic TB breakdown farms in Wales in 2018 has been published on the Welsh Government website and sent to relevant stakeholders, including the Committee. A copy is available at the following link:
https://gov.wales/bovine-tb-badger-trapping-and-testing-chronic-tb-breakdown-farms-2018

It is worth mentioning, that the work undertaken to evaluate Farm Level Interventions is conceived as a longitudinal study and as such, requires time to gather data and further consideration to determine the suitable follow-up period.

As stated in recommendation 7, APHA are capturing information on the long term efficacy of the policy and its impact on disease and aim to monitor cattle disease parameters (herd level & animal level). They will continuously gather data and monitor when sufficient data is available.

This will be done by comparing case herds against control herds. This data will be gathered using existing APHA systems but again it is not known for how long this would need to take place nor how many match pairs would need to be compared. Whole genome sequencing of M. bovis isolates from infected badgers as well as infected cattle will improve our understanding of infection transmission on the farms.

Recommendation 9

The Welsh Government and Defra should ensure that the guidance which is in place to facilitate cross border liaison is robust, particularly in relation to the exercising of wildlife controls, including badger removal and culling. This guidance must be kept under review by the Welsh Government and Defra.

The committee were provided with a copy of the Defra guidance governing the licensing of culls in England, published in December 2015.

Information from Defra, report on Assessing the effects of the industry led badger culling in England on the incidence of bTB in cattle 2013 – 2017 indicates that no lasting adverse impact was detected in the 2km buffers zones following four years of badger controls in Gloucester and Somerset and two years in Dorset.

https://www.nature.com/articles/s41598-019-49957-6

Incidence rates in the Gloucestershire and Dorset intervention buffer zones were lower than in comparison buffer zones each year since culling started. Incidence

rates in the Somerset intervention buffer zone were higher than in comparison areas in the first year after culling started but were similar to comparison zones in years two, three and four.

Recommendation 10

The Welsh Government should pay farmers a reasonable compensation sum for cattle slaughtered as part of the TB eradication programme. This sum should be kept under review, in consultation with stakeholders.

Welsh Government officials have begun work on identifying options for changing the TB compensation system. These options have been presented to the TB programme Board and further development of some of these options will take place before a proposed way forward is presented to stakeholders as part of a consultation process. Any changes to the compensation system that are implemented will ensure that a reasonable sum of compensation will be paid for cattle slaughtered, within the constraints of current budgets. Any new TB compensation system would also aim to also incentivise compliance and best practice.

Recommendation 11

The Welsh Government must ensure that current funding received from the European Union for bovine TB testing and other measures will be guaranteed within future Welsh Government budgets.

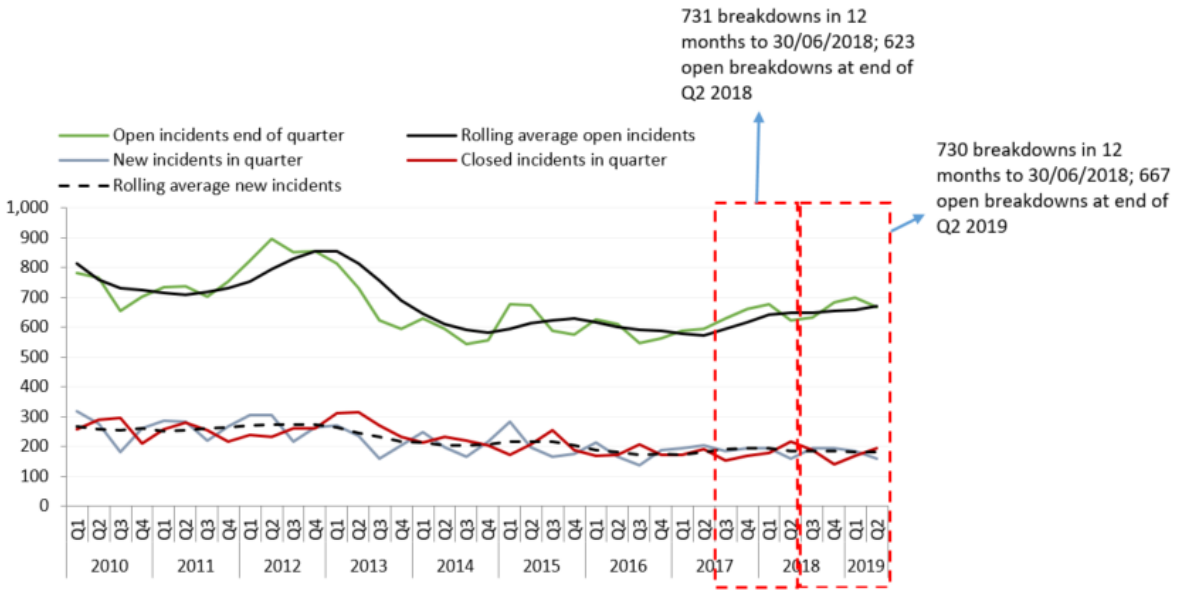
We are currently in discussions with UK Government to ensure that this funding will continue post Brexit. We are still discussing detailed aspects of this funding stream with the Treasury.

Recommendation 12

The Welsh Government must seek urgent assurances from the UK Government that the Bovine TB status of the UK will not affect continuing access to the EU Single Market.

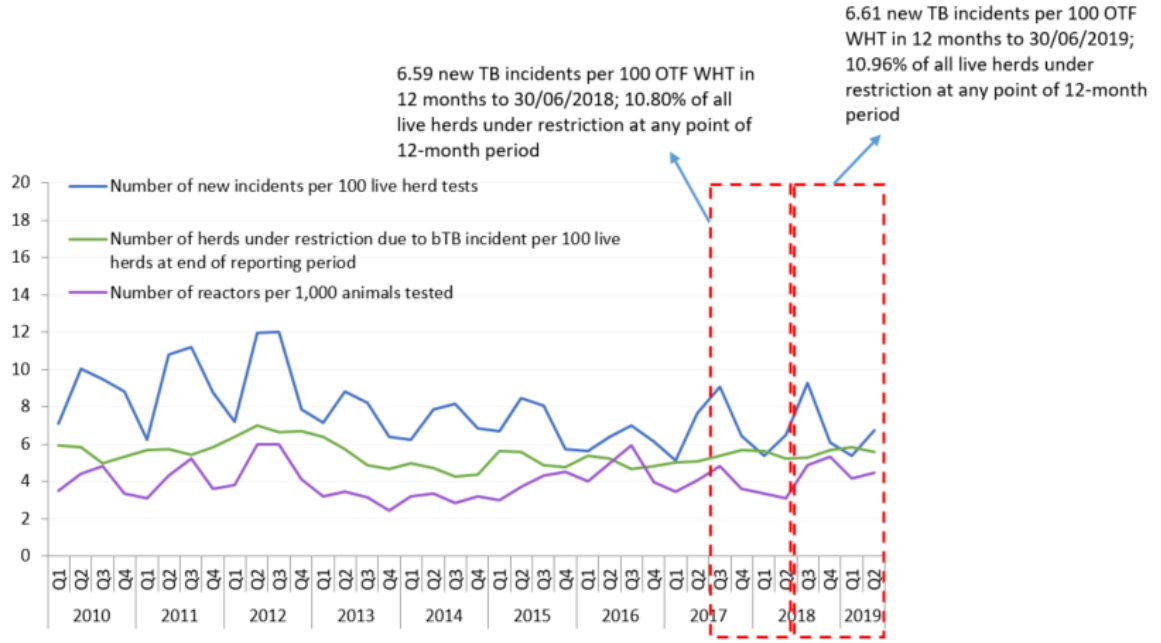
In order to export to the EU post Brexit, UK Government with our support have applied to become a listed third country as was the case back in March and we were approved on Friday 11th October (should these arrangements be necessary). During the last vote the UK Government were required to dynamically align by keeping pace with EU legislation on animal health, welfare and food & feed safety for 9 months, and this is also the case now. With third country listing being obtained there is no reason to believe the TB status of the UK will affect access to the EU Single Market. All businesses who wish to trade with the EU have to ensure their products come from a farm which is TB free and under no restrictions. The UK can export to the EU without being non officially TB free, the EHC requires the farm to be TB free and not the country.

Annex 2



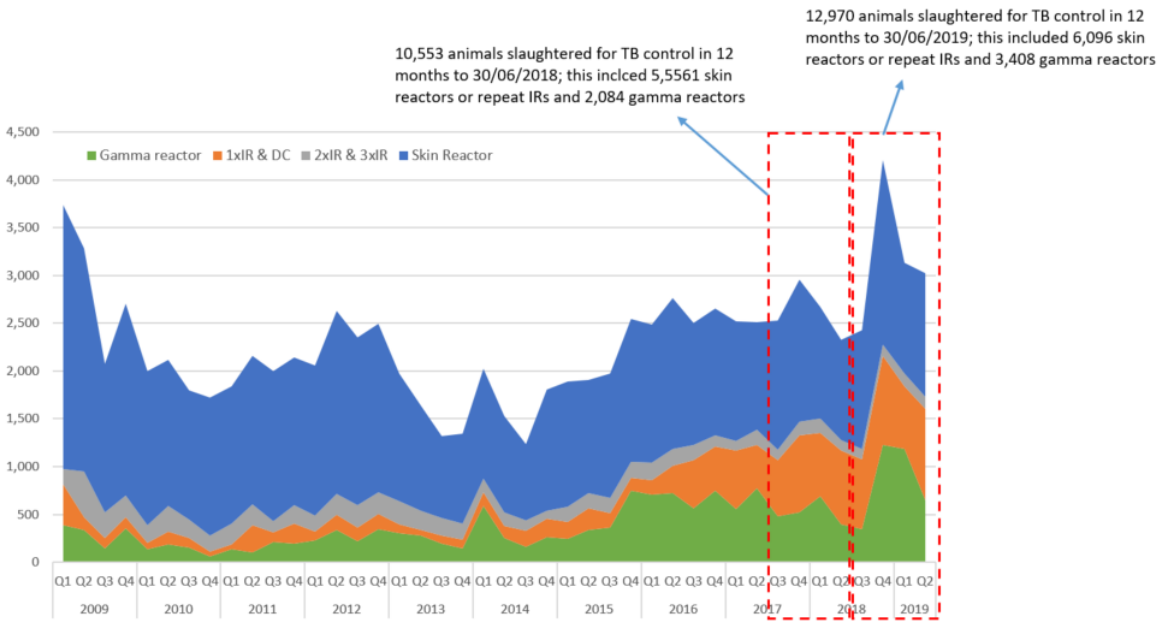
Source: APHA surveillance data at September 2019

Figure 2: Wales adjusted TB timeline Q1 2009 – Q2 2019



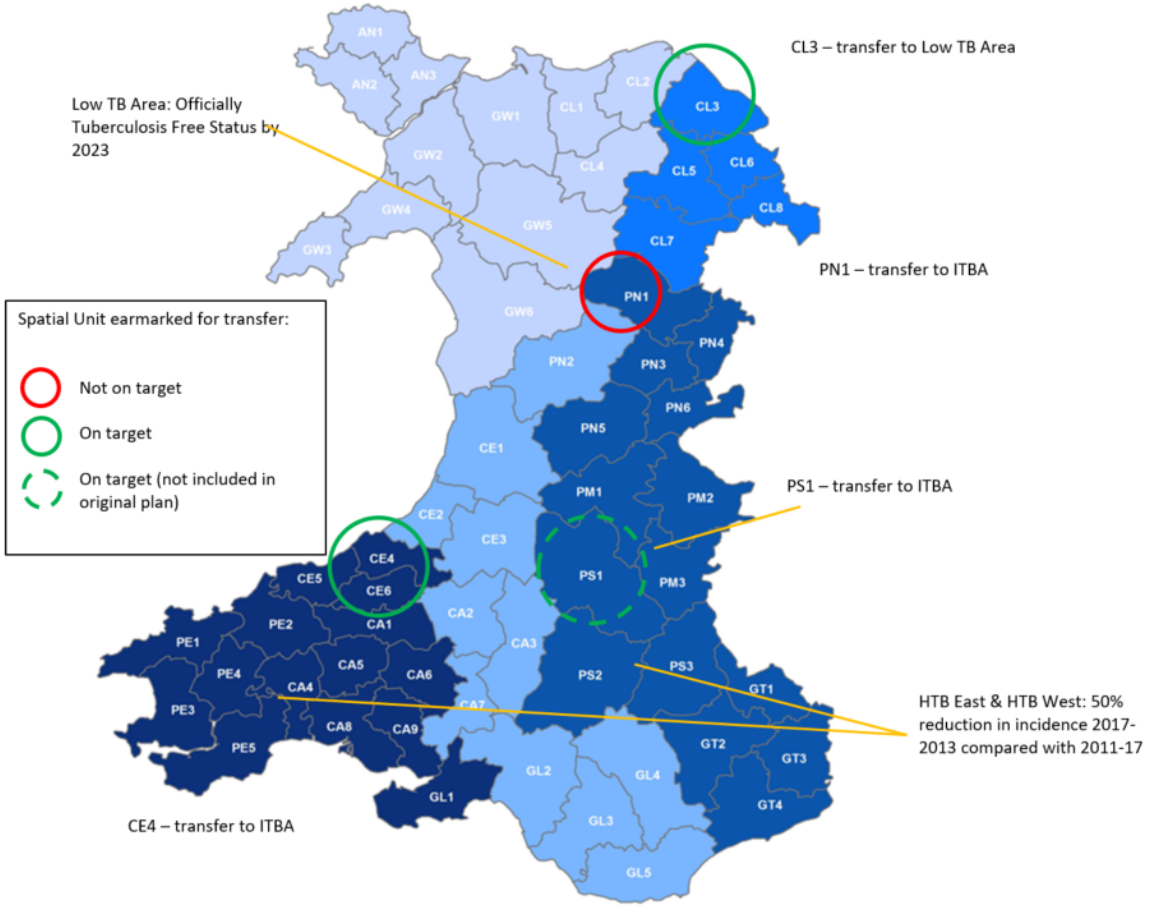
Source: APHA surveillance data at September 2019

Figure 3 – Animals slaughtered for purposes of TB control in Wales, Q1 2009 – Q2 2019



Source: APHA surveillance data at September 2019

Figure 4 - Wales TB Regionalisation map with status of eradication milestones for first quartile (2017-23) of Wales TB Eradication Plan



Source: APHA surveillance data at September 2019