

----- Forwarded Message -----

From: xxxxxxxxxxxxxxxx

To: "xxxxxxxxxxx" <xxxxxxxxx@phe.gov.uk>

Sent: 20/05/2013 11:24:38

Subject: Proportion of farmers who test positive to the skin test

Dear xxxxxxxxxxx,

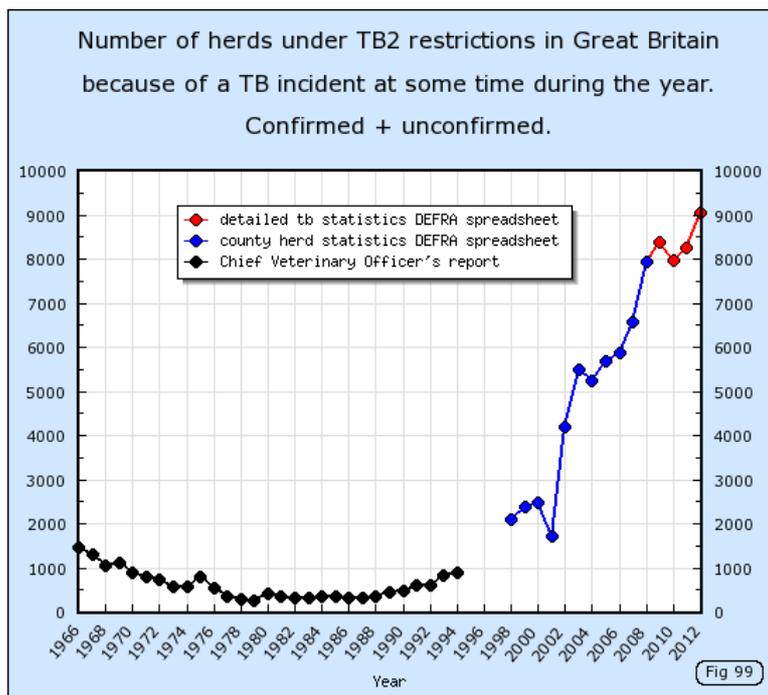
Thank you for your reply. I have studied the tables shown in the pages which link to the page for which you kindly gave the URL in your reply below.

However, as I think you may have gathered from my enquiry, the number of active cases which are being diagnosed is not my primary interest.

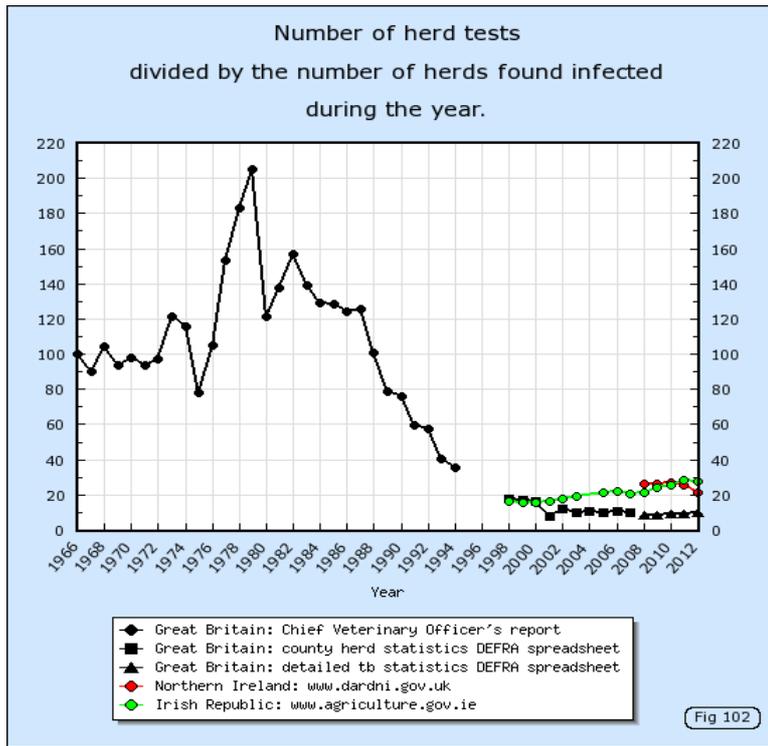
I understand that the skin test is an easy way to detect latent infection. There is obviously less incentive to put the necessary resource into carrying out post-mortems when someone dies of TB in old age. Would it not be prudent in the case of a chronic disease like TB to get an early indication of how the potential for active disease may be building in the human population by monitoring the prevalence of latent infection? Would this not give an earlier indication of cause of death from TB in future years?

I ask this because although dairy farmers are advised not to drink the unpasteurised milk which their herd produces, I suspect that the vast majority of dairy farmers do. I come from a dairy farming family who have had TB in their herd and who have continued to drink this milk whilst their herd has been TB restricted. Many of the neighbouring farmers who I have spoken to also drink this milk and this is also confirmed by posts which I have seen in online farming forums.

As I am sure you are aware, the current prevalence of bovine TB in cattle in Great Britain is very high. You are also probably aware of the very rapid rate at which bovine TB in cattle has been increasing in Great Britain since the late 80's. There is also no obvious solution to reducing this steady and rapid increase in the foreseeable future. Currently the proportion of herds in South West England which are infected during the course of each year is about a quarter. In terms of the number of herds infected in Great Britain, 2012 was the worst year on record as can be seen in the attached graph.

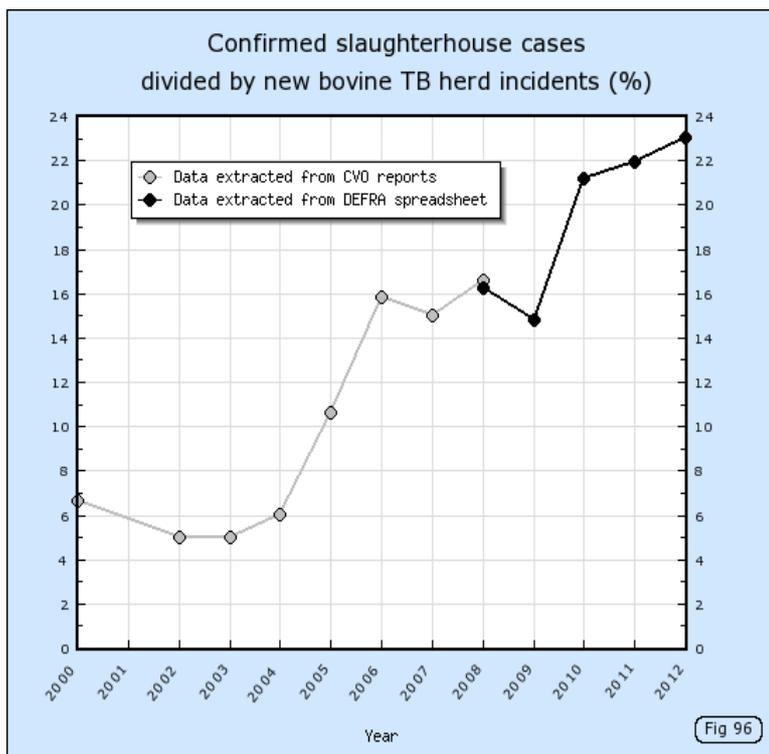


As shown in the second attached graph,



this is in spite of the low level of testing carried out in Great Britain compared to testing in Northern Ireland and the Irish Republic where to every herd found infected, twice as many herds have been tested over the course of the last 5 years.

Another worrying trend is the increasing proportion of cattle TB being detected during slaughterhouse inspection. As shown in the attached graph the proportion of new herd incidences detected in slaughterhouses has increased by a factor of 4 during the last 10 years.



Also as reported in Reference 1, which looks at a study carried out in Northern Ireland, between 1.5 and 1.8 more cases of infected herds were picked up by state veterinarians than Private Veterinary Practitioners. The vast majority of TB cases are picked up by on-farm tests and these tests are routinely carried out by Private Veterinary Practitioners. Both of these trends suggest that the proportion of infected herds which have gone undetected during on-farm tests may have significantly increased in recent years. If this has been happening this would have increased the risk to farmers who drink the milk straight from their bulk tank.

If it is not difficult to monitor the number of latent cases in the dairy farmer samples which you are testing, I am intrigued as to why this is not being done. If such information were to be collected, would such information be deemed to be appropriate for disclosure to the general public?

Yours sincerely,

xxxxxxxxxxxx

References

1.

http://www.niauditoffice.gov.uk/index/publications/report_archive_home/reports_archive_2009/the_control_of_bovine_tuberculosis_in_ni.pdf

----- Original Message -----

From: "xxxxxxxxxxxx" <xxxxxxxx@phe.gov.uk>

To: "xxxxxxxx" <xxxxxxxx>

Sent: 20/05/2013 08:48:17

Subject: RE: Proportion of farmers who test positive to the skin test

Dear xxxxxxxxxxx

At the Public Health England Centre for Infectious Disease Surveillance and Control we do not collect data on the results of Mantoux skin testing. The national Enhanced TB Surveillance system (ETS) collects data on cases of active TB disease only, including cases due to Mycobacterium bovis. Data on human cases of M.bovis in the UK can be found at

<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tuberculosis/TBUKSurveillanceData/EnhancedMycobacteriumBovisSurveillance/>. As you will see, the proportion of TB cases in the UK caused by M. bovis infection is very small; the majority of cases are in UK-born people aged 65 and over, most likely due to reactivation of latent infection acquired before the routine pasteurisation of dairy products.

Best wishes

xxxxxxx

-----Original Message-----

From: xxxxxxxxxxxxxxx

Sent: 17 May 2013 20:27

To: xxxxxxxxxxx

Subject: TB: Proportion of farmers who test positive to the skin test

Dear xxxxxxxxxxx,

Thank you for providing these answers. Unfortunately I was most hoping you would be

able to answer the following question.

4. What proportion of farmers, who are skin tested in England, have been found to give a positive result when skin tested? If you can, please identify this proportion in DAIRY farmers.

Does your answer mean that PHE do not monitor the susceptibility to TB according to profession, and PHE have no awareness of the proportion of skin tests on farmers, and dairy farmers in particular, which are positive?

Yours sincerely,

xxxxxxxxxxxxxx.

----- Original Message -----

From: "xxxxxxxxxx" <xxxxxxxxxx@phe.gov.uk>

To: xxxxxxxxxxxxxxxxx

Cc: "xxxxxxxxxx" <xxxxxxxxxx@phe.gov.uk>

Sent: 17/05/2013 18:23:01

Subject: RE: assistance required for query

Dear xxxxxxxxxxx

Apologies for the delay in the response; your email has only found its way to the TB team today.

In response to your specific questions:

1. The general principles for contact tracing around cases of bovine tuberculosis are the same as for contacts of a human case of tuberculosis. It should be limited to close contacts likely to have had significant exposure to infection. In practice, this means those who may have consumed raw milk or unpasteurised dairy products from a cow with udder lesions, and those with regular direct contact with an infected animal i. Reactor with visible lesions of the udder, suspected or proven to be tuberculosis Screen those known - or likely - to have consumed raw milk or unpasteurised dairy products.

ii. Reactor or abattoir case with visible, culture positive, pulmonary lesions on slaughter Use an approach based on risk: screen those who have been in regular direct contact with the animal; widen the circle if more than expected are found to have inappropriately positive skin tests or evidence of infection (the 'stone in the pond' principle).

iii. Reactor or abattoir cases with other visible lesions (+/- positive culture) eg lymph nodes, liver, kidney, tonsil etc on slaughter Screening is not usually necessary unless there is reason to believe there is unusual infectivity or contacts are vulnerable.

iv. Reactor(s) with no visible lesions, regardless of culture results
No screening of human contacts required

2. If screening is indicated for a potentially exposed close contact, a Mantoux skin test would usually be used as the first line screening test offered to those aged under 35 years.

3. There is no gold standard test for the diagnosis of latent TB infection, so there is no simple answer on the sensitivity of the Mantoux test for detecting latent TB infection. Studies of the use of the Mantoux test in patients with active TB disease have led to

estimates of sensitivity of between 71-82%.

4. I am not aware of any studies in the UK where a cohort of farmers has been screened for latent TB infection.

5. Although there is some uncertainty around the progression rate from latent TB infection to active TB disease, for those with a strongly positive Mantoux skin test, who are presumed to be infected with tuberculosis, approximately 10-15% go on to develop clinical disease at some point in their lives.

Best wishes

xxxxxxxxxxx

xxxxxxxxxxxxxxx

Consultant Epidemiologist & FETP Fellow Head of TB Surveillance Public Health England Centre for Infectious Disease Surveillance and Control
61 Colindale Ave
London NW9 5EQ

Tel: 0208 327 6441

Email: xxxxxxxxxx@phe.org.uk

On 1 April this organisation's functions transferred to Public Health England. Please note my new email address above.

-----Original Message-----

From: TBSection

Sent: 17 May 2013 14:28

To: xxxxxxxxxxxxx

Cc:xxxxxxxxxxxxx

Subject: FW: assistance required for query

Many thanks,

xxxxxxxxxxxxxxx

-----Original Message-----

From: PHE.enquiries

Sent: 17 May 2013 11:00

To: TBSection

Subject: assistance required for query

Hello some queries for you about TB that have been received through the central enquiries service, they were initially sent to TB.NKS email which I don't believe exists, Thanks, xxxxxx PHE enquiries

-----Original Message-----

From: xxxxxxxxxxxxxxx

Sent: 17 May 2013 10:10

To: TB.NKS; PHE.enquiries

Cc: PHE.enquiries

Subject: Re: TB: Proportion of farmers who test positive to the skin test

Dear Sir / Madam,

As far as I am aware I have not received any reply to either of my emails shown below.

I would be grateful if either TB.NKS@hpa.org.uk or hpa.enquiries@hpa.org.uk could send to me an acknowledgement of receipt and perhaps update me on progress.

Thank you,

xxxxxxxxxxx

----- Original Message -----

From: "xxxxxxxxx" <xxxxxxxxxxx>

To: TB.NKS@hpa.org.uk

Cc: hpa.enquiries@hpa.org.uk

Sent: 10/05/2013 08:11:45

Subject: TB: Proportion of farmers who test positive to the skin test

Dear Sir / Madam,

More than 20 working days have elapsed since I sent the request for information to you in my email below. In view of this and the absence of any reply which I have received I assume that a reply to this earlier email will not now be forthcoming. Please disregard that earlier email and try to respond to this email in which I have tried to clarify the information which I require.

If you can, please answer the following questions.

1. In England, in what circumstances is a farmer contacted regarding screening for TB when the farmer's herd tests positive for TB?

2. Do situations arise during the screening of members of the farmer's household whereby skin tests are carried out?

3. In various large scale study trials, what proportion of people who are known to be infected with TB have been found to give a positive result when skin tested? Another words, what is the sensitivity of the skin test?

4. What proportion of farmers, who are skin tested in England, have been found to give a positive result when skin tested? If you can, please identify this proportion in DAIRY farmers.

5. What proportion of people who are skin-test-positive later go on to develop symptoms. (I understand from Reference 1 that this proportion may be 5-10%, since Reference 1 reports that 5-10% of latently infected humans develop clinical tuberculosis during their lifetime through re-activation of the latent infection (re-activation tuberculosis).)

If appropriate, please treat this as a Freedom of Information request.

Responses by email will be preferred.

Yours faithfully,

XXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXXXXXXX
XXXXXXXXXXXX

Reference

1. Bovine TB Special Edition. Government Veterinary Journal. VOLUME 16 , NO1 , 2006.

----- Forwarded Message -----

From: xxxxxxxxxxxxxxxx

To: TB.NKS@hpa.org.uk

Sent: 10/04/2013 23:27:46

Subject: Proportion of farm workers who are TB skin-test-positive

Dear Sir / Madam,

Ref: Proportion of farm workers who are TB skin-test-positive

According to Reference 1, 5-10% of latently infected humans develop clinical tuberculosis during their lifetime through re-activation of the latent infection (re-activation tuberculosis). I understand that one test which can detect latent TB (in a proportion of cases) is the skin test. I think this test is known as the Mantoux test.

When a farmer's herd fails a TB test which is later confirmed by culture or visible lesions, I think the HPA may offer X rays and /or a screening skin test to the farmer.

Are you aware of any studies which have looked into the proportion of cattle-owning farmers who test positive to the skin test? I am particularly interested in the subset of this farmer population who own dairy herds with a TB history because the vast majority of these farmers drink the unpasteurised milk which their cattle produce.

If you are aware of any such studies, I would be grateful if you could direct me to any reports which would give me an insight into this proportion and how this proportion is impacted by whether or not these farmers own TB infected dairy cattle.

If appropriate, please treat this as a Freedom of Information request.

Responses by email will be preferred.

Yours faithfully,

XXXXXXXXXXXX.
XXXXXXXXXXXXXXXXXXXX,

XXXXXXXXXX,
XXXXXXX,
XXXXX,
XXXXXXX.
XXXXXXXXXX

Reference

1. <http://www.bovinetb.info/docs/gvj-vol1601.pdf>