The Role of the Public Analyst-Food Safety for Thought

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Our History

• The industrial revolution in the 1800s meant that there was migration of the population from country to town dwelling. This led to a reliance on food supply which led to competition BUT NO LAW IN PLACE.

• There were some statutes for the likes of pepper, bread, ale and wines/spirits but crude techniques employed.

• Little advance on the law until 1850 when Britain's art and manufacturing industry were the envy of the world but public health administration was at an all time low.
History (Cont)

• Mr Wakeley, editor of The Lancet, published articles highlighting grim stories of food adulteration and from this the Lancet Analytical Society was formed which was controlled by Dr Arthur Hill Hassall who investigated food adulteration and is considered to be the first Food Analyst.

• He was a physician but also an enthusiastic microscopist.
History (Cont)

• Reports were published in The Lancet and vendors were 'named and shamed'.

• Adulteration was categorised as either fraud, harmful fraud or toxic fraud.

• The content of the reports made it difficult to see how people survived after eating- but it had the effect of reducing adulteration.

• 1855- a parliamentary committee was set up to further investigate food adulteration-find how widespread it was also concern it may affect the 'commercial character of the country'
The Act of 1860

- 1860- "An Act for the Prevention of the Adulteration of Articles of Food or Drink" Published.
- Illegal to sell adulterated food and drink
- Foodstuffs were to be investigated by an unbiased authority and complaints to be assessed.
- The Act stated Analysts should be appointed by local authorities to do this.
- Initially failure of the Act to impact on problems-no recognised methods, limited knowledge of food composition, legal inadequacies and unsuitably qualified appointed analysts.
An Association begins

• A group of able chemists carried out systematic study and set up methods.

• The Society of Public Analysts was setting the standard for analytical food chemistry and the training of chemists.

• The Association of Public Analysts set up in 1954.

• The badge depicting the many disciplines of the profession.
And now

• Public Analysts are appointed to local authorities under the Food Safety Act 1990, section 27.

• They can be appointed as Agricultural Analysts under the Agriculture Act 1970, section 67.

• There are 433 local authorities in the UK who are responsible for enforcing food safety and standards.

• To be appointed you must hold the statutory qualification of the Mastership in Chemical Analysis (MChemA) awarded by the Royal Society of Chemistry.

• The Food Safety (Sampling and Qualifications) (England) Regulations 2013
Currently in the UK

• ENGLAND: Six local authority laboratories- Hampshire, Kent, Lancashire, Staffordshire, West Yorkshire, Worcestershire.

• One private laboratory service (Public Analyst Scientific Services) with four sites (Hull, London, Norwich and Wolverhampton). They are employed by Eurofins Food Testing who have laboratories worldwide.

• SCOTLAND: Four local authority laboratories (Aberdeen, Edinburgh, Glasgow and Tayside).

• WALES: One private laboratory service (Minton, Treharne & Davies Ltd, Llanelli & Cardiff)

• Twenty seven (27) appointed Public Analysts in ten (10) local authority and two (2) private laboratory services

• There are also government laboratories on the Isle of Man, Jersey and Guernsey and in the Republic of Ireland.

• EACH ARE TITLED ‘OFFICIAL CONTROL LABORATORIES’ AS RECOGNISED BY THE EUROPEAN UNION
Position only six years ago

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- 15 LOCAL AUTHORITY & 2 PRIVATE LABORATORIES
When I started in 1988

• I came into the profession as a fresh Graduate in 1988. The role was titled “Graduate Scientist” but now it would be “Senior Scientific Officer”

• I undertook a wide range of testing including food, agriculture, toys, cosmetics, furniture, clothing, water, soil and atmospheric pollution..here I am testing rain fallout as Kent had a number of cement works!
Kent Scientific Services now

• 1 Head of Laboratory
• 2 Public Analysts
• 1 Quality Manager
• 8 Food Analysts
• 5 Toxicologists
• 2 calibration staff
• 1 Driver
• 6 admin staff (shared with two other departments)
Kent Scientific Services (cont)

• We are an Official Control Laboratory. EU regulation 882/2005 puts a duty on the competent authority (for the UK it is the FSA) to provide an adequate food/feed analysis service.

• We are UKAS (United Kingdom Accreditation Service) ISO 17025 accredited for food, water, agriculture, cosmetic and toxicology analysis indicating competency in testing and calibration.

Sample numbers

- It's clear that one main factor in the number of Public Analyst Laboratories reducing is the number of official control samples being taken.
- In the UK, the number taken in 2010/11 was 92,122 but in 2014/25 it was 68,471 (26% reduction).
  - England (-33%), Wales (-28%), *N Ireland (-13%), Scotland (+10%)
  - *first 9 months of 2014/15 As district councils reduced from 26 to 11.
- This is on the back of Local Authorities struggling to maintain inspections of the increasing number of food businesses with reduced resources while customer complaints rise.
- Further pressure on Government and Local Authority resources still to come.
- So the laboratories remaining have had to diversify
- In Kent the sample numbers are around 6000 per year.
Range of Testing

• In Kent we have a Metrology laboratory and a Toxicology Laboratory. The Tox Lab carries out the analysis of coroners samples submitted following unexpected deaths or suicides. We currently carry out this work for Kent, Hampshire and Sussex coroners.

• The laboratory also specialises in certain areas of food and agriculture testing which includes pesticide analysis, kitchenware analysis, mycotoxins, cosmetic and fertiliser testing.

• The laboratories also offer testing for private businesses.
Scope of work

• All Public Analyst Laboratories hold a large scope of accredited methods which is necessary when 'policing' the large range of potential samples and problems.

• We also undertake the analysis of samples from ports and airports. These will be held pending results. So we are the barrier before foods and products enter the UK market.

• So you often feel you are fighting a battle in the trenches!
But we also do TV work!
Future

• If we look at the current situation regarding trainee Public Analyst numbers:
• There are seventeen candidates currently registered for the MChemA
• One qualified in 2016 and roughly one a year have completed their studies since 2000.
• Three students are in the final part of their studies and could potentially pass this year.
• Six (6) could potentially progress to the final part next year and we have one repeating the part A stage with a number of other new applicants waiting to start the process.
• All are encouraged to attend an annual residential training course at Reading University. Currently the Food Standards Agency and DEFRA financially support this allowing Public Analyst Laboratories to send at least one trainee free of charge.
Training

• Our Training Officer (Michael Walker) facilitates and organises training courses and events for Public Analysts and trainees in partnership with our training committee. This helps those candidates studying and practicing Public Analysts maintain their CPC.

• Training guides and resources are made available on the APA and RSC websites to assist MChemA students to progress.
Further Training

• In addition, the APA Educational Trust continues to support the continuing professional development of members (and have funded the attendance of Public Analysts to this event) and financially supports the MChemA trainees at events wherever possible.

• The APA is also liaising with the Institute of Food Science and Technology through joint members allowing Public Analysts and trainees to attend food business visits.

• The National reference Laboratories also continue to support the Public Analyst Laboratories (Official Control Laboratories) through workshops and training days at no charge.

• DEFRA have also supported training through knowledge transfer events again with no charge to the laboratories.
And in the near future

• Currently the APA are looking to extend its associate membership to food examiners, National Reference Laboratory staff and Heads of Official Control Laboratories who are not Public Analysts as a way of forming a closer working relationship and extending our breadth of knowledge and expertise.

• Discussions have taken place between the APA and ACTSO (Association of Chief Trading Standards Officers) which will hopefully lead to a joint approach in attempting to suggest ways in which the current enforcement model could be effectively funded.
And in the near future

- The six Local Authority Public Analyst Laboratories in England are currently in discussion and progress on a working partnership is underway and ongoing.
- There is a name, agreed aims and objectives, engagement with leaders and elected members of the councils involved has been initiated and all laboratories are positively working together to deliver an outcome.
- All meeting the Elliott Review recommendation that “A public sector ‘spine’ to laboratory provision for food testing would create a resilient, competitive service...offer considerable added value..leading to the Service working alongside private sector provision”.
Currently happening

• Local authority Trading Standards are working closely with food businesses through the primary authority agreement.

• Assured advice can be given and an analytical service can be offered via their appointed Public Analysts.

• Businesses like the thought of assured advice with UKAS accredited analysis on a report signed by a Public Analyst (USP)

• No conflict of interest as long as no advice directly to business (only through the LA) and no recommendation of what analysis should be carried out.

• Allows businesses who want to comply to work with the enforcement bodies. More resource to then act on rouge traders?
So where are we as a profession?

- So not standing still
- Trying to move the profession and service forward
- Want to maintain the presence of the Public Analyst Service as part of the future enforcement service and network.
- Both Public and Private Public Analyst Laboratory Services working in tandem. Cross working between the network of European Official Control Laboratories.
- Ensuring the presence of a modern and forward thinking Public Analyst Service as part of a network ensure food safety for years to come.
THANK YOU

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