

Public health specialist capacity - findings

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Introduction

- This document summarises research and findings arising from HEE and PHE work to update understanding around current numbers in the public health specialist workforce in 2017
- This follows previous work by the Centre for Workforce Intelligence in 2015/16, in collaboration with HEE, PHE and the Department of Health
- The following slides cover the following sections:
 - **Executive summary and conclusions – slides 3 to 8**
 - **Information on registrant numbers (via GMC, GDC and UKPHR) – slides 9 to 10**
 - **Findings from local authorities (via survey collection) – slides 11 to 24**
 - **Findings from PHE and the NHS (via the Electronic Staff Record) – slides 25 to 33**
 - **Findings from universities (via the Higher Education Statistics Agency) – slides 34 to 40**

Executive summary and conclusions

Summary numbers

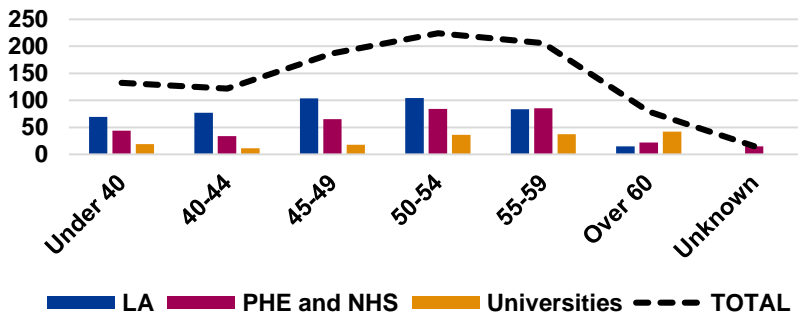
- Approximately 453 FTE public health specialist staff in **local authorities**
 - **We do not have headcount for local authorities, but if we assume the average participation rate of 0.82 seen in other sectors for local authorities, this would give a total of 549 staff in local authorities**
- 298 (272 FTE) public health specialist staff in **Public Health England**
- 124 (78 FTE) public health specialist staff in **NHS organisations/providers**, including 20 (18 FTE) in **NHS England and NICE**
- 199 (162 FTE) public health specialist academics in **universities**

TOTAL: At least 965 FTE, and assuming 549 HC in local authorities, 1,170 across local authorities, PHE, the NHS and universities.

NB - these figures exclude third and independent sectors.

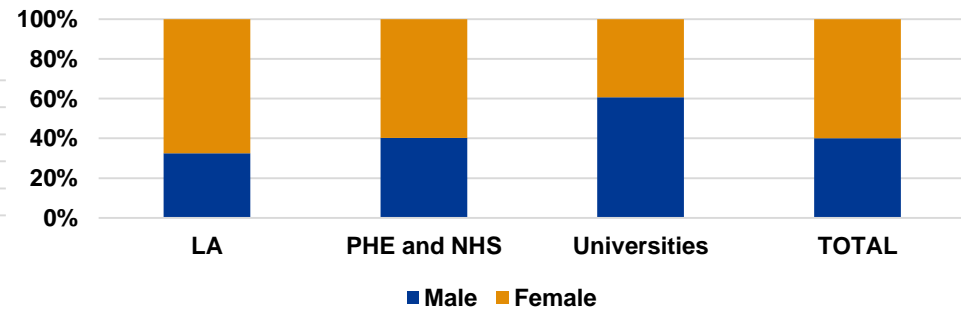
Summary age, gender and registration profile

Age profile, all public health specialists, 2016/17 (n = 965 FTE)

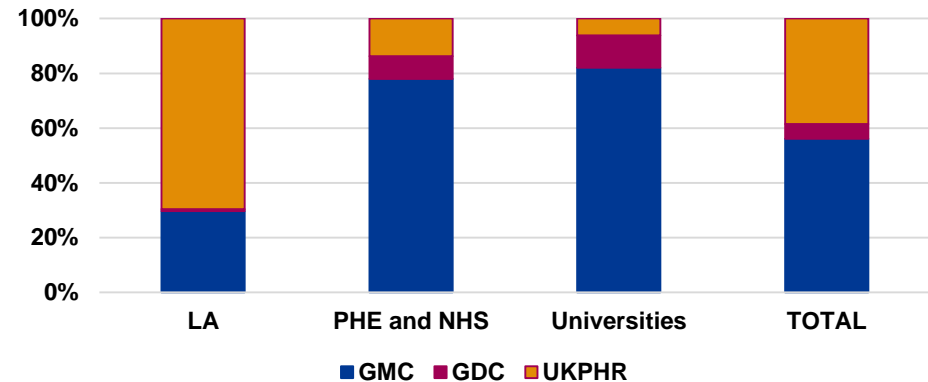


- Overall, public health specialists are typically aged 50-54; over half are aged 50 or over and approximately 30% 55 or over
- The majority of the public health specialist workforce is female (approximately 60%)
- Approximately 55% of the specialist workforce are registered with the GMC; 5% with the GDC, and 40% are registered with the UKPHR
- The evidence strongly points towards a distinction between local authority staff (majority backgrounds other than medicine) and PHE, NHS and university staff (majority medical and dental).

Gender balance, all public health specialists, 2016/17 (n = 965 FTE)



Registration, all public health specialists, 2016/17 (n = 965 FTE, exc 5 unknown)



2015 v 2017 comparison

Sector	CfWI, 2016 – headcount (estimated)	CfWI, 2016 – full time equivalent (estimated)	2015 analysis (consistent with 2017 method) – headcount (estimated)	2015 analysis (consistent with 2017 method) – full time equivalent (estimated)	2017 analysis – headcount (estimated)	2017 analysis – FTE (estimated)	Change 2015-17	FTE Change 2015-17
Local authorities	510	469	569	475	549	453	-20	-22
Public Health England	411	382	279	257	298	272	+21	+15
NHS	50	231*	104	63	124	78	+20	+15
Universities	190		173	144	199	162	+26	+18
Total	1,161	1,082*	1,125	939	1,170	965	+45	+26

There is some evidence to suggest that numbers within the system have increased slightly (by 3-4%) from 2015. While numbers in local authorities have fallen by about 5%, numbers have increased within PHE, the NHS and universities.

Number of public health registrants in the UK holding a current registration, March 2017

Type of registration	UK, March 2017	% of registrants, March 2017
General Medical Council – public health or epidemiology	1,057	60
General Dental Council – dental public health (includes UKPHR dual registrants)	107*	6
UK Public Health Register – generalist specialist	510	29
UK Public Health Register – defined specialist	91	5
UK Public Health Register – dual specialist (included with GDC)	3*	0.2
TOTAL	1,765	100

Implications

- **Results of the 2017 public health specialist review are broadly consistent with those reported by the CfWI in 2016**
- **The evidence suggests there was a 3% increase in FTE between 2015 and 2017. There was a 10% increase in FTE in PHE, the NHS and universities, but a 5% reduction in local authority FTE staff**
- **There is clear evidence of growing distinction in demographics between specialists employed by PHE, the NHS and universities (who tend to be older and from medical/dental backgrounds), and those employed in local authorities (who tend to be younger and from backgrounds other than medicine). This may have implications for training and for career progression**
- **This distinction may reflect the nature of roles in those organisations – with highly specialist roles (often requiring some clinical expertise, and often in health protection) tending to be located in PHE, the NHS and universities.**
- **This distinction may also reflect the historical development of the profession, with registrants from outside medicine and dentistry only emerging in the last decade and typically focusing more on health promotion (where local authorities have greater responsibilities)**
- **There may be signs, as anticipated by the CfWI in 2016, that increasingly specialists come from backgrounds other than medicine – this is supported by the fact that about half of trainees in public health specialty training since 2012 have come from backgrounds other than medicine or dentistry**

1. Public health registrants in the UK, 2017

Number of public health registrants in the UK holding a current registration, March 2017

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2. Findings from local authorities

Methodology

Tool

- The data collection tool and questions were designed by HEE and PHE, to capture information on the **numbers and demographics of consultants and Directors of Public Health (DsPH) as of April 2017**. It also captured **unfilled/vacant posts**
- The tool was based on a similar exercise conducted by HEE and PHE in 2015, so where possible appropriate links to 2015 results have been made

Survey live period

- Data collection was undertaken from April to June 2017, with promotion by PHE Local Centres and data provided by local authorities via Directors of Public Health

Results

- Raw data was cleaned (i.e. correcting assumed clerical or data entry errors), and corrected to ensure consistency with reported FTE
- As this data is from a voluntary survey, it is not a complete dataset. Results are therefore estimates.
- Consultant numbers are reported by extrapolating the survey data, weighted by% **of population captured by region** (for consultants)
- DsPH numbers are reported by extrapolating the survey data, weighted by the **number of local authorities and triangulated with known information on DsPH in public domain** (for DsPH). Numbers provided are 'most likely', and reflect combined numbers of consultants and DsPH
- The reported 'margin of error' is calculated on the basis of the number of responding local authorities. However, because survey respondents were 'self-selecting' and therefore not 'random', the actual margin of error may be higher
- Results are presented by PHE centre, rather than by HEE local team area. PHE centres correspond to local government regions, making these centres a more appropriate means of reporting than HEE local teams and regions.
- A list of local authorities corresponding to PHE centre is provided on **slide 7**. Information at HEE local team level is available on request.

Response rates

PHE Region/Centre	Estimated 2017 population (based on ONS projections)	Number of LAs that responded to survey	Total number of LAs	% of LAs that responded	% population represented by responding LAs	Estimated% margin of error, at 95% confidence level*
London	8,958,000	22	33	67%	71%	12.3%
Midlands and East	17,005,000	23	35	66%	69%	12.1%
North	15,305,000	44	50	88%	85%	5.2%
South	14,344,000	29	34	85%	88%	7.1%
East Midlands	4,736,000	6	9	67%	78%	24.5%
East of England	6,450,000	8	12	67%	69%	20.9%
London	8,958,000	22	33	67%	71%	12.3%
North East	2,645,000	11	12	92%	93%	8.9%
North West	7,219,000	23	23	100%	100%	0.0%
South East	8,828,000	17	18	94%	97%	5.7%
South West	5,516,000	12	16	75%	75%	14.6%
West Midlands	5,819,000	9	14	64%	63%	20.3%
Yorkshire And The Humber	5,441,000	10	15	67%	63%	18.5%
Total for England	55,612,000	118	152	78%	79%	4.3%

* Given the survey response rate, we can reasonably expect real numbers at national and regional level to be within plus or minus the margin of error of the reported findings 95% of the time (i.e. if this collection were repeated 100 times, we'd expect such results on 95 occasions). However, as the survey collection was not random, it may be actual margin of error is higher.

Responding local authorities

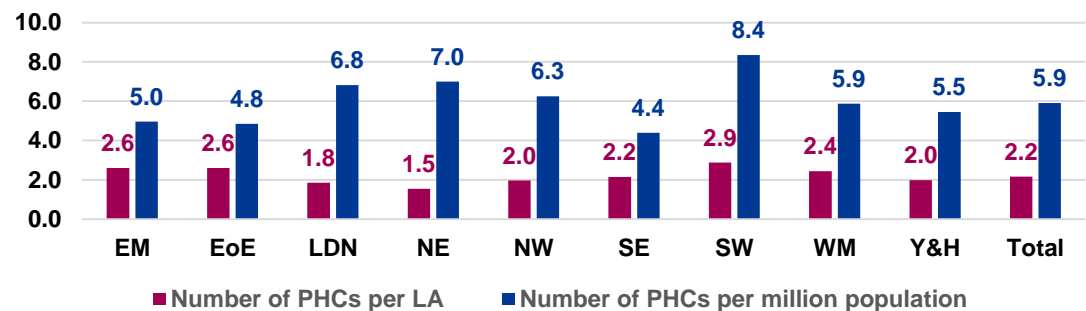
PHE Centre	Total number of LAs	% of LAs responding	Responding local authorities	Non-responding local authorities
East Midlands	9	67%	Derby, Derbyshire, Leicester, Lincolnshire, Northamptonshire, Nottinghamshire	Leicestershire/Rutland, Nottingham,
East of England	12	67%	Bedford/Central Bedfordshire/Milton Keynes, Cambridgeshire/Peterborough, Essex, Hertfordshire, Luton	Norfolk, Southend-on-Sea, Suffolk, Thurrock
London	33	67%	Barking and Dagenham, Barnet/Harrow, Bexley/Bromley, Camden/Islington, Croydon, Ealing, Enfield, Greenwich, Haringey, Hillingdon, Hounslow, Merton, Newham, Richmond/Wandsworth, Sutton, Tower Hamlets, Waltham Forest	Brent, City/Hackney, Hammersmith & Fulham/Kensington & Chelsea/Westminster, Havering, Kingston-upon-Thames, Lambeth/Southwark, Lewisham
North East	12	92%	County Durham, Darlington, Gateshead, Hartlepool, Middlesbrough, Newcastle-upon-Tyne, North Tyneside, Northumberland, Redcar & Cleveland, South Tyneside, Sunderland	Stockton-on-Tees
North West	23	100%	Blackburn with Darwen, Blackpool, Bury, Cheshire East, Cheshire West and Chester, Cumbria, Halton, Knowsley, Lancashire, Liverpool, Manchester, Oldham, Rochdale, Salford, Sefton, St Helens, Stockport, Tameside, Trafford, Warrington, Wigan, Wirral	N/A
South East	18	94%	Berkshire (Bracknell Forest, Reading, Slough, West Berkshire, Windsor & Maidenhead, Wokingham), Brighton & Hove, Buckinghamshire, East Sussex, Hampshire, Isle of Wight, Kent, Medway, Oxfordshire, Portsmouth, Surrey, West Sussex	Southampton
South West	16	75%	Bournemouth/Dorset/Poole, Cornwall/Isles of Scilly, North Somerset, Plymouth, Somerset, South Gloucestershire, Swindon, Wiltshire	Bath and North East Somerset, Bristol, Gloucestershire, Torbay
West Midlands	14	64%	Coventry, Dudley, Sandwell, Solihull, Staffordshire, Telford & Wrekin, Warwickshire, Wolverhampton, Warwickshire	Birmingham, Herefordshire, Shropshire, Stoke-on-Trent, Walsall
Yorkshire And The Humber	15	67%	Barnsley, Calderdale, Doncaster, East Riding of Yorkshire, Kingston-upon-Hull, Leeds, North East Lincolnshire, North Yorkshire, Wakefield, York	Bradford, Kirklees, North Lincolnshire, Rotherham, Sheffield

Public health consultants

- Based on the sample of responding local authorities, there were approximately **329 (+/- 15) FTE** public health consultants in post as of April-June 2017.
- There are on average **just over 2 FTE** consultants per local authority, equating to **just under 6 consultants** per million population employed in local authorities.
- The **South West** have the most consultants, both per local authority (2.9) and per million population (8.4). The **North East** have the **fewest per local authority** (1.5); the **South East per million population** (4.4). These results are likely to reflect local dynamics, for example the size of local authorities by population.

Region	PHC – FTE in responding LAs	Total PHC – estimated FTE in all LAs, extrapolation based on% covered
London	43	61
Midlands and East	61	89
North	81	94
South	72	85
EM	18	24
EoE	22	31
LDN	43	61
NE	17	19
NW	45	45
SE	38	39
SW	34	46
WM	21	34
Y&H	19	30
Total	257	329

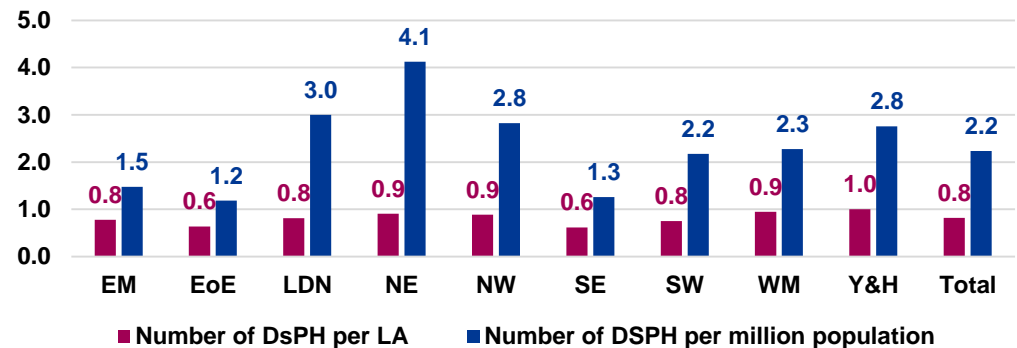
Number of public health consultants in 2017, per local authority and per million population



Directors of Public Health

- Based on the sample of responding local authorities, there were approximately **124 (+/- 6) FTE** Directors of Public Health in post as of 2017. We know that there is a total of **132 DPH** posts within the 152 local authorities.
- Overall, there are **about 0.8 FTE DsPH** per local authority, equating to **just over 2 FTE DsPH per million population** employed in local authorities.
- The **North East** have the most DsPH relative to population (4.1 per million), while the **East of England** have the fewest (1.2 per million). Again, these results are likely to reflect local dynamics, for example the size of local authorities by population.

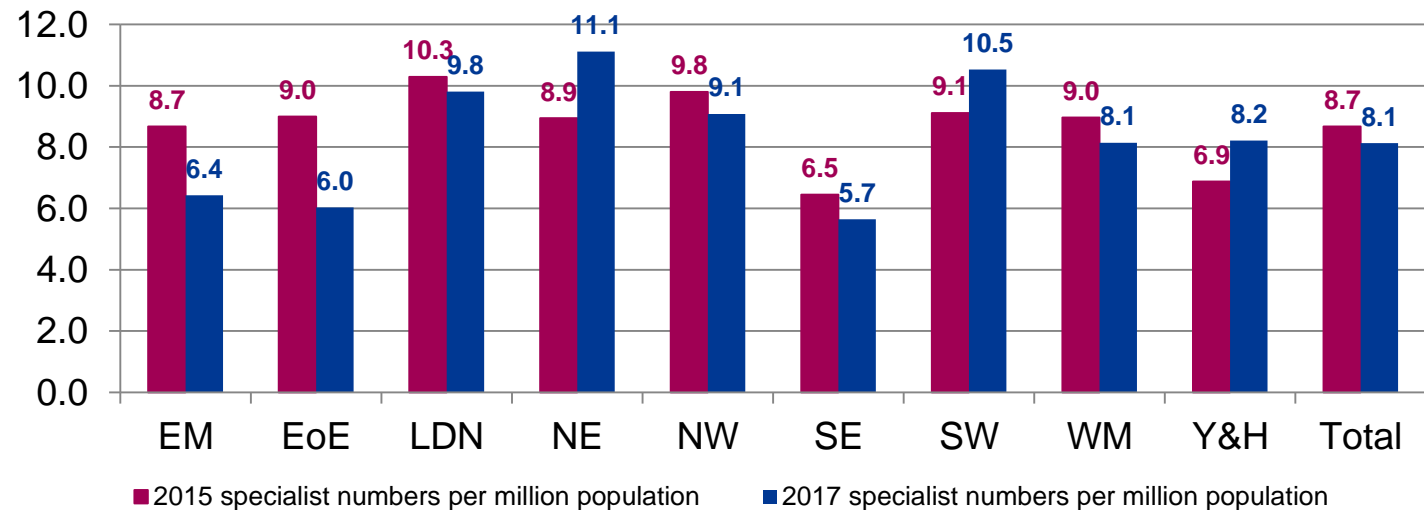
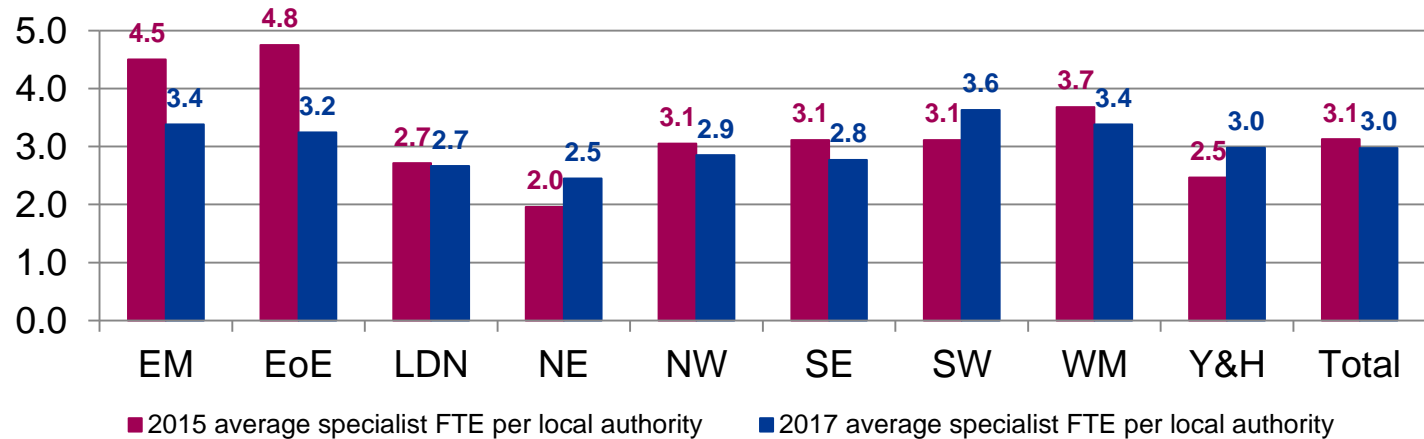
Number of Directors of Public Health, per local authority and per million population



Region	DsPH – FTE in responding LAs	Total DsPH – estimated FTE in all LAs, extrapolated based on number of local authorities
London	18	27
Midlands and East	19	28
North	40	46
South	20	23
EM	5	7
EoE	5	8
LDN	18	27
NE	10	11
NW	20	20
SE	11	11
SW	9	12
WM	9	13
Y&H	10	15
Total	97	124

Comparison between 2015 and 2017 – specialist capacity

Region	2015 FTE estimate (PHCs + DsPH)*	2017 FTE estimate (PHCs + DsPH)	Estimated change FTE, 2015 to 2017
London	90	88	-2
Midlands and East	150	117	-33
North	131	140	9
South	106	108	2
EM	41	31	-10
EoE	57	39	-18
LDN	90	88	-2
NE	24	29	5
NW	70	66	-4
SE	56	50	-6
SW	50	58	8
WM	52	47	-5
Y&H	37	45	8
Total	477	453	-24



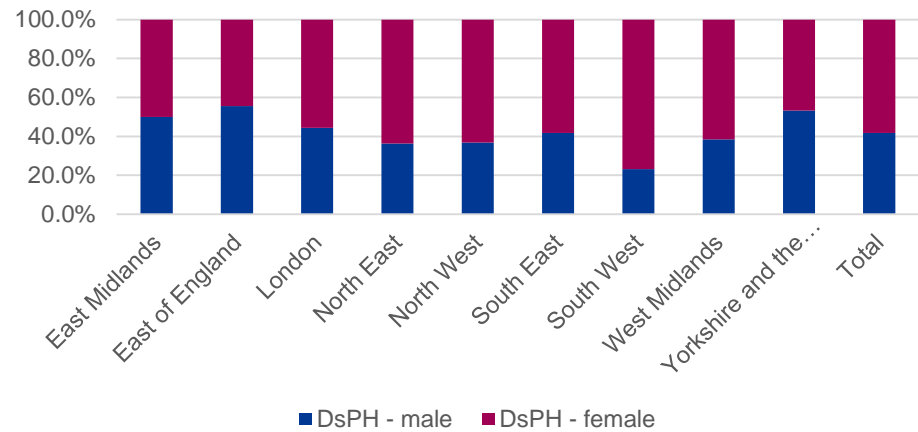
* For providing a comparison with 2015 FTE, we have estimated numbers using the same methodology as used for 2017 and the original 2015 data. This means the number for 2015 differs to that found by the CfWI (which is provided in slide 36), which used a different method of calculation. 2015 numbers here are approximately +10 FTE higher than the CfWI reported figure – as a result of using a different method of estimation.

Gender

Gender balance of public health consultants, 2017



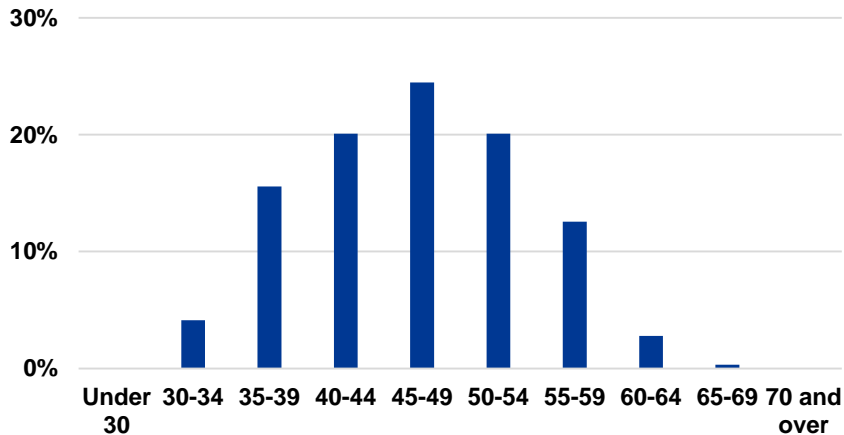
Gender balance of Directors of Public Health, 2017



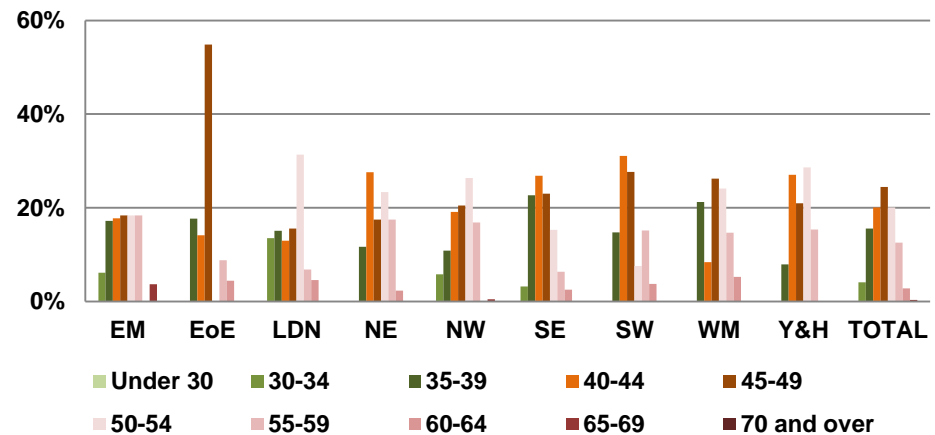
- Overall, **approximately 70% of local authority consultants and just under 60% of Directors of Public Health in 2017 are female. In total, approximately two thirds of all specialists in local authorities were female**
- The highest proportion of male specialists were in **Yorkshire and Humber (44%)** and the **East of England (43%)**; the lowest proportion of male specialists were in the **West Midlands (24%)**

Age profile - consultants

Age profile of public health consultants - national (n = 329 FTE)



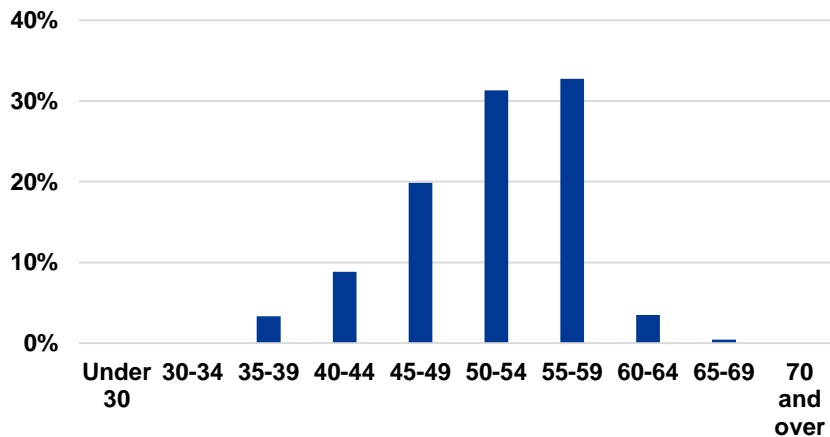
Age profile of public health consultants - by region



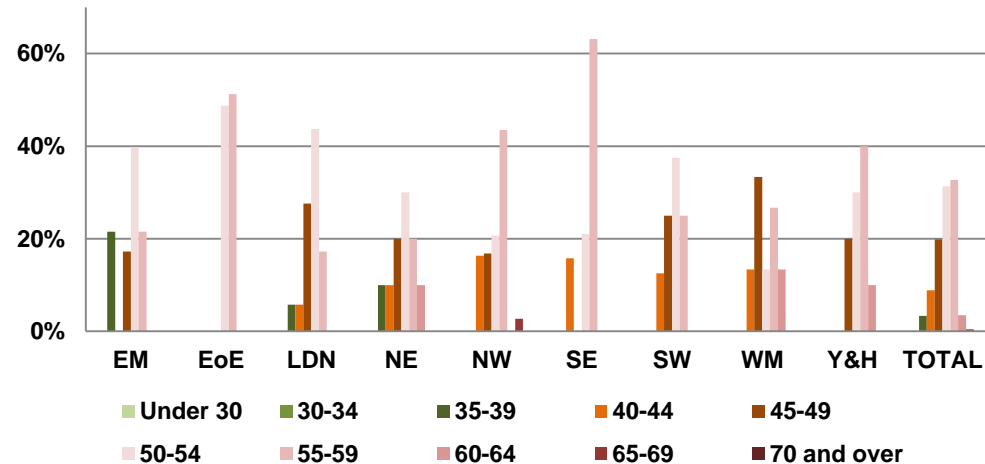
- The national age profile of estimated number of local authority public health consultants follows a classic bell curve distribution, with the median age group of consultants aged **45-49**
- **Just under 40% of consultants** aged over 50 years or older nationally
- At regional level there is some variation – West Midlands and Yorkshire and Humber has an older age profile, with 44% of consultants aged 50 or older; in East of England only 13% of consultants are aged 50 or older.

Age profile - DsPH

Age profile of DsPH – national (n =124 FTE)



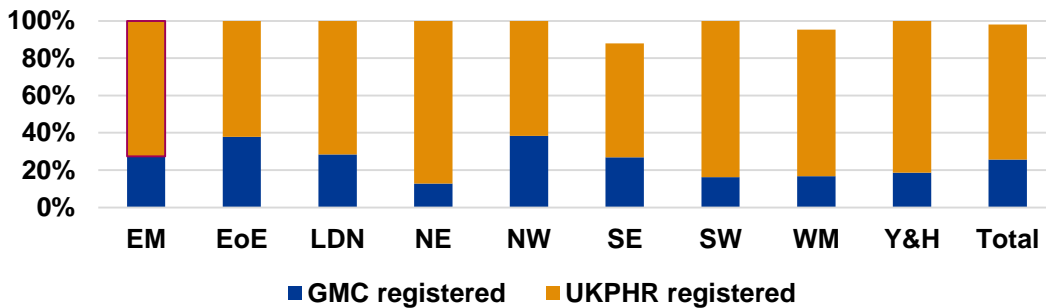
Age profile of DsPH - by region



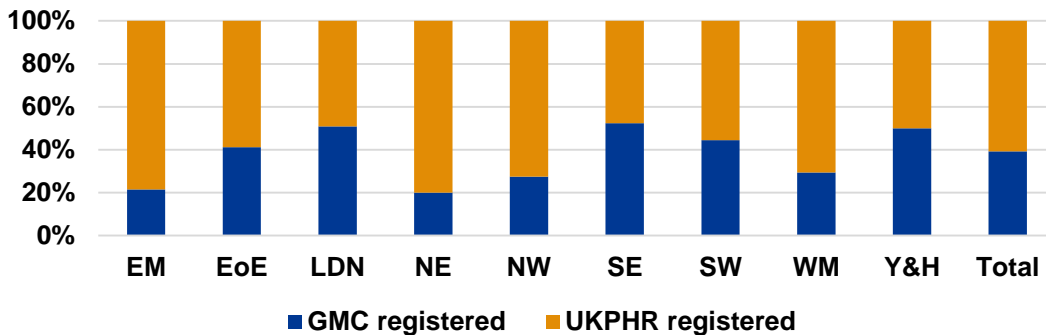
- The national age profile of estimated number of local authority DsPH shows an older age distribution compared to consultants, with the median age group **50-54** - perhaps not unexpected given statutory role and highest PH leadership role in local authority
- **Just under 7 in 10 of DsPH** aged 50 or over nationally
- At regional level there is some variation – all DsPH in East of England are aged 50 or over, while only just over half are in the West Midlands

Registration body

% of PH consultants registered with GMC or UKPHR in each region



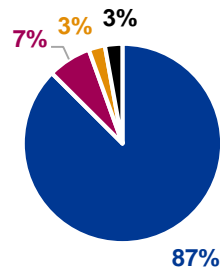
% of DsPH registered with GMC or UKPHR in each region



- DsPH must be registered with either the General Medical Council (GMC), General Dental Council (GDC) or UK Public Health Register (UKPHR)
- Registration is compulsory for medical and dental consultants, and voluntary for those from other backgrounds (in practice, registration is a pre-requisite for recruitment)
- **Overall, approximately 70% of specialists in local authorities are UKPHR registered; just under 30% are GMC registered**
- Just over 25% of consultants in local authorities and just under 40% of DsPH are GMC registered
- Fewer than 10 consultants in local authorities are GDC registered or hold dual registration
- The highest proportion of GMC registrants are the in East of England (39% all specialists); the smallest are in the North East (15%)

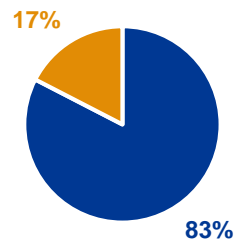
Contractual status

Contractual status of public health consultants, 2017 (n = 329 FTE)



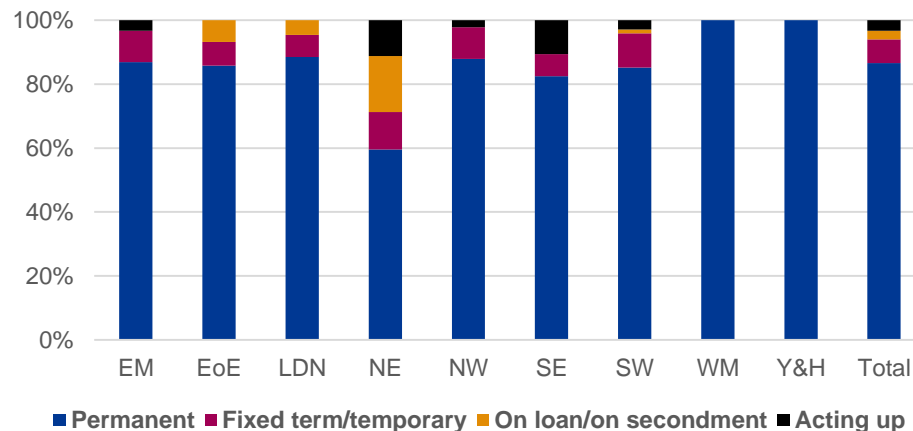
- Permanent
- Fixed Term / Temporary
- On loan/on secondment
- Acting up

Contractual status of Directors of Public Health, 2017 (n = 124 FTE)

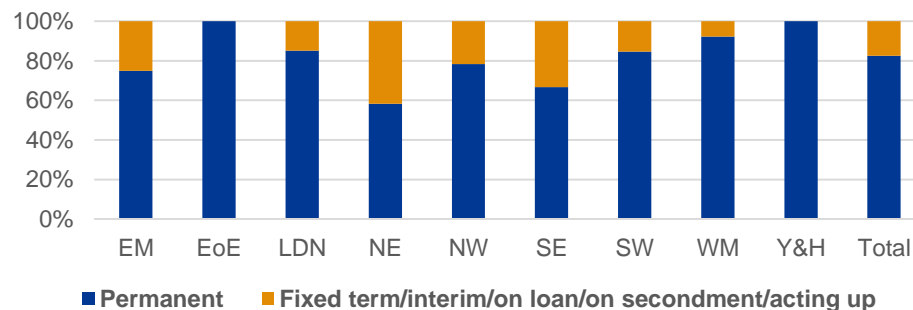


- Permanent
- Fixed term/interim/on loan/on secondment/acting up

Contractual status of public health consultants - by region

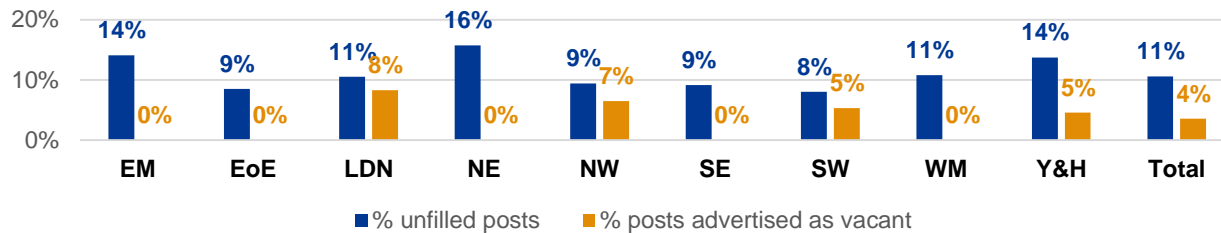


Contractual status of Directors of Public Health – by region

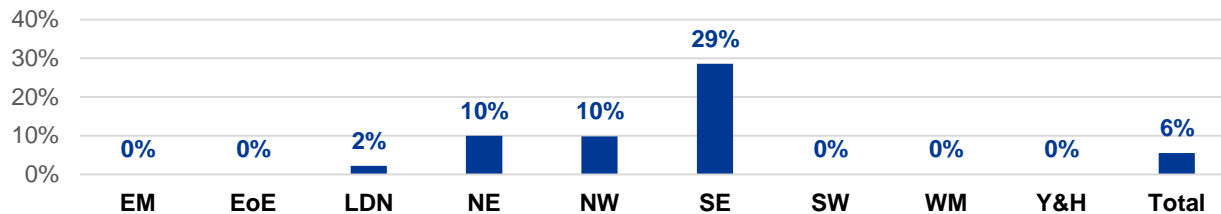


Vacant and unfilled posts

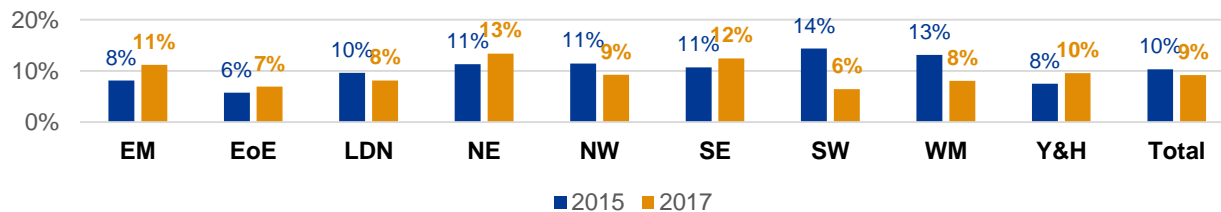
% of public health consultant posts unfilled or vacant



% of DsPH posts unfilled



% of specialist posts unfilled – 2015 v 2017 comparison



Unfilled posts = Establishment posts currently not filled (i.e. empty posts currently not being filled by local authorities, or being filled by temporary appointments)

Vacant posts = posts currently advertised as vacant (i.e. local authorities actively recruiting to fill posts)

Summary: local authorities

Summary of findings

- Based on the responses to our survey, we estimate there were approximately 329 FTE consultants and 124 FTE Directors of Public Health in local authorities as of April 2017
- There has been a reduction in overall specialist capacity by about 5% since 2015. Changes, however, vary across the regions
- The median age of consultants was 45-49; for Directors of Public Health this was 50-54
- Only approximately 25% of consultants and approximately 40% of Directors of Public Health were registered with the GMC, with the majority registered with the UKPHR
- Just under nine in ten consultants and just over eight of ten Directors of Public Health on permanent contracts
- 11% of consultant posts and 6% of Director of Public Health posts unfilled; 4% of consultant posts and no Director of Public Health posts vacant
- No data was available on nationality of staff

3. Findings from PHE and the NHS

Methodology

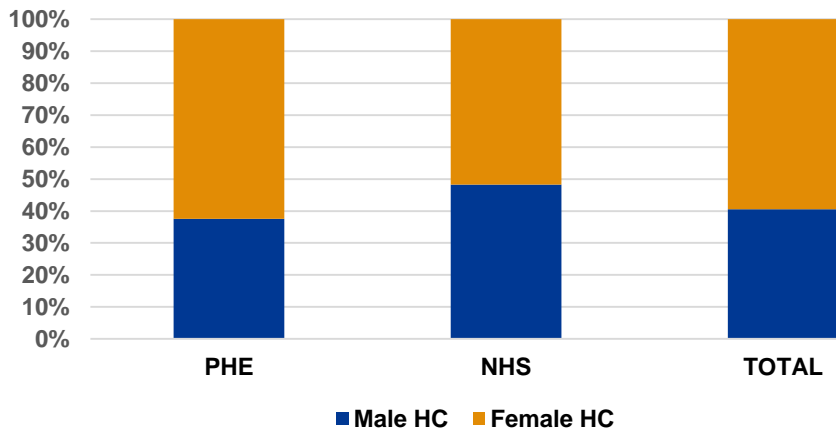
- **Numbers of staff working in PHE and in the NHS are recorded in the Electronic Staff Record**
- **HEE has access to registration data from the General Medical Council and the General Dental Council**, which is used to check flows between training and entering the NHS workforce
- **HEE currently does not have access to UK Public Health Register data; however registration numbers are available in the public domain**
- **To confirm numbers working in PHE and in NHS organisations, our numbers are based on those recorded in the ESR as having a registration with the GMC, the GDC or the UKPHR in public health as of March 2017.** This provides numbers of public health registrants employed by either PHE or in the NHS
- **Registrations are in either:**
 - Public health medicine or epidemiology (GMC)
 - Dental public health (GDC)
 - Public health, as either a defined specialist, dual specialist or generalist specialist (UKPHR).

Number of PHE and NHS staff

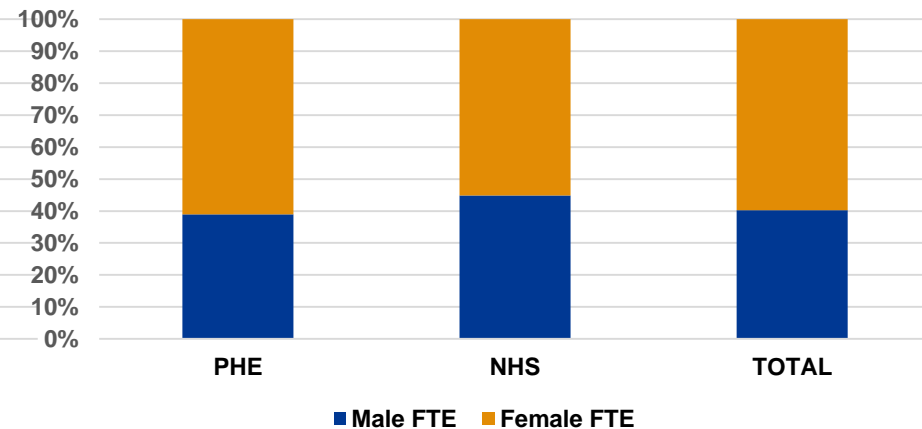
- Based on cross-checking of registration body number and the Electronic Staff Record, we estimate that there were in March 2017:
 - **298** (272 FTE) in Public Health England;
 - **13** (12 FTE) in NHS England;
 - **7** (6 FTE) in the National Institute for Health and Clinical Excellence;
 - **104** (60 FTE) in other NHS organisations/providers (i.e. trusts, CCGs, other arms length bodies)
- This gives a total of **422** (350 FTE) as recorded in the Electronic Staff Record, with an approximate participation rate of 0.83

Gender balance

Gender balance in PHE and NHS, 2017 - headcount



Gender balance in PHE and NHS, 2017 - FTE

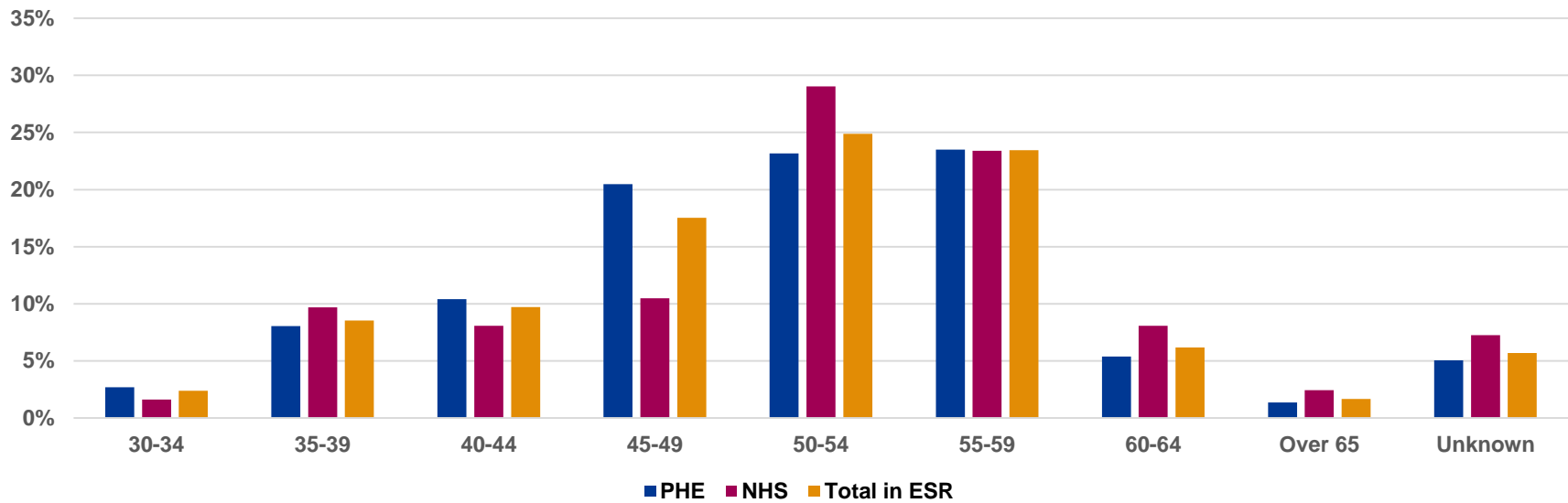


- Overall, approximately 60% of specialists recorded in the Electronic Staff Record are female
- This is slightly lower compared to local authorities (where approximately two thirds are female)
- There are a higher proportion of women in PHE, compared to NHS organisations

Age profile

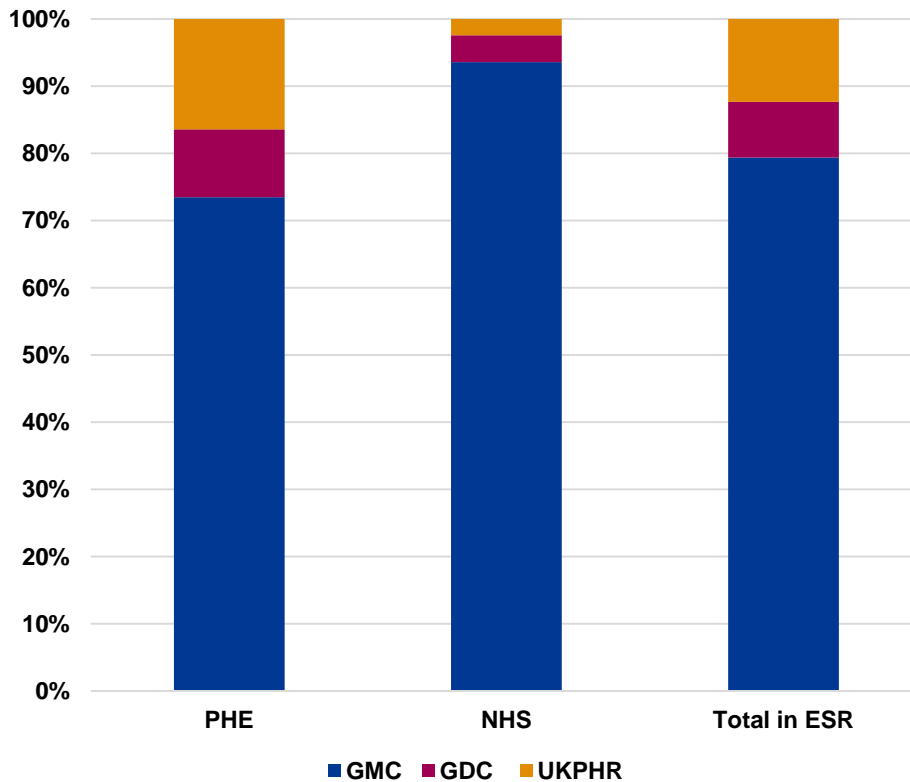
- The median age group for public health specialists as recorded in the ESR is 50-54 – similar to those of Directors of Public Health in local authorities
- Over 55% of specialists in PHE and NHS are aged 50 or over; approximately 30% are 55 or over
- Specialists in NHS have an older age profile than those in PHE

Age profile of public health specialists in PHE and NHS, 2017



Registration body

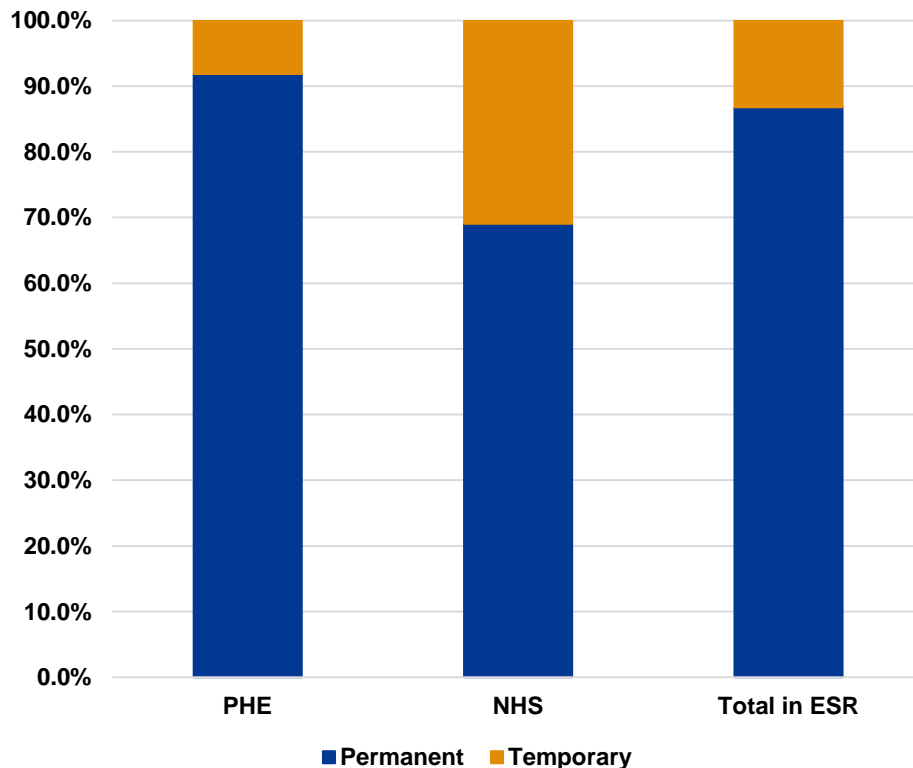
Registration body of public health specialists in PHE and NHS



- **Approximately 80% of specialists in PHE and 95% of specialists in the NHS come from either a medical or dental background**
- **Overall, nearly 90% of specialists in ESR come from either a medical or dental background; this compares to only 30% in local authorities**

Contractual status

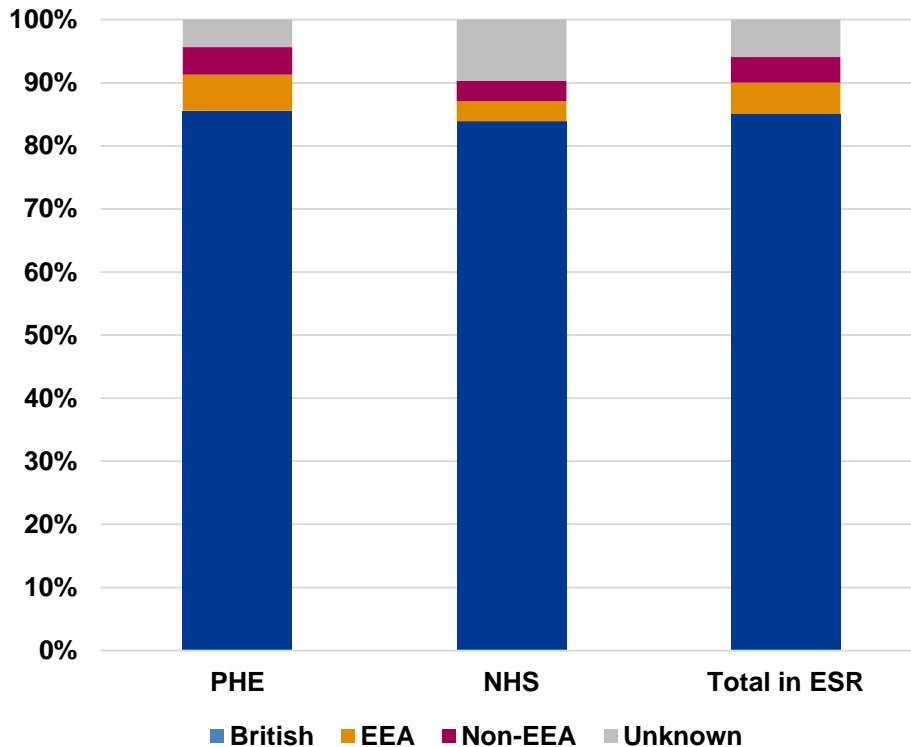
Contractual status of public health specialists in PHE and NHS, 2017



- Overall, 87% of public health consultants employed in PHE and NHS hold permanent posts; this is similar to the proportion holding consultant posts in local authorities
- A significant proportion of NHS posts are currently filled on a temporary basis, with just under a third of capacity being provided through temporary staff posts (i.e. fixed term and locum positions)
- By contrast only about 10% of capacity in PHE is filled by temporary staff, with the rest held by permanent staff

Nationality

Nationality of PHE and NHS staff, 2017



- The vast majority of PHE and NHS staff are British nationals
- Overall, at least 9% of the public health specialist workforce recorded in ESR come from overseas; in the case of PHE this is at least 10%

Summary: PHE and NHS staff

Summary of findings

- In 2017 there were 298 (272 FTE) consultants employed in Public Health England holding public health registration, and 124 (78 FTE) consultants employed in NHS organisations
- PHE and NHS staff have a slightly older profile than local authorities, with 55% of staff aged over 50
- The majority of PHE and NHS staff are registered either with the GMC or GDC. This is different to the situation in local authorities, where the majority are registrants with the UKPHR
- While over 90% of public health specialist posts in PHE are permanent appointments, fewer than 70% of those in the NHS are
- Approximately 10% of PHE and NHS public health consultants are non-British nationals

4. Findings from universities

Methodology

- **The number of academics are recorded in staff data gathered by the Higher Education Statistics Agency (HESA)– the latest available is from the 2015/16 academic year**
- **The HESA staff record includes information on registration body and demographics of public health academics**
- **Numbers from the HESA Staff Record were triangulated with numbers tracked by Public Health England and the Medical and Dental Schools Councils**

Numbers of university staff

Numbers recorded in HESA

- In 2015/16, there were **175** (143 FTE) academics in public health medicine at consultant level or non-medical grade equivalent, and **24** (19 FTE) academics in dental public health, giving a total of **199** (162 FTE) academics in public health or dental public health and a participation rate of 0.81
- Of these, 182 (91%) were consultants and 17 (9%) were at non-medical grade equivalent (e.g. Senior Lecturer or above).

Numbers are slightly lower than reported by the Medical and Dental Schools Councils

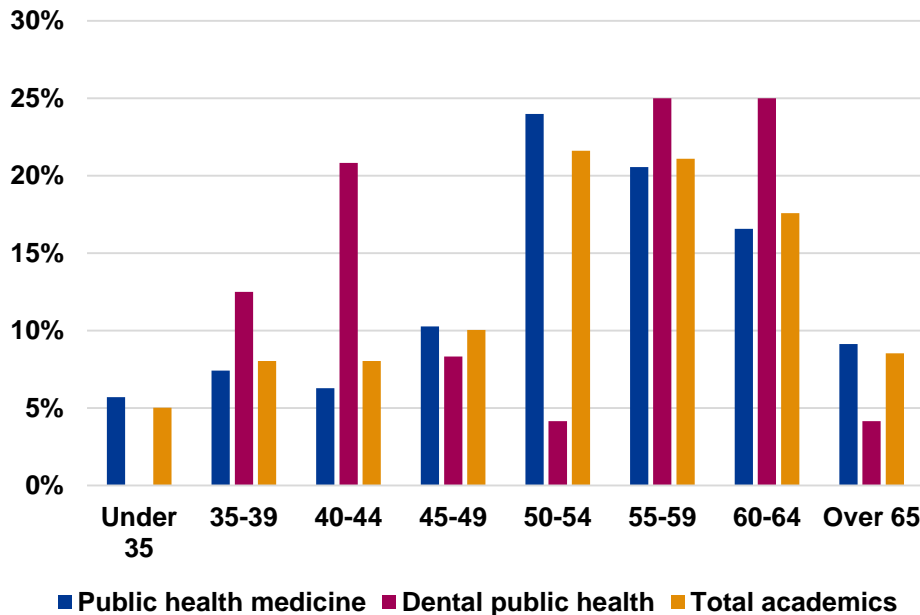
- There were approximately **162 FTE** academics in public health medicine and **33 FTE** in **dental public health** – this data however counts academics from across the UK, so HESA numbers are plausible

Numbers are also broadly similar to those recorded by PHE, who monitor staff holding honorary contracts

- There are a total of 402 active academics recorded by PHE, of which **178 hold consultant contracts**
- Out of all holding consultant contracts, **93%** come from a medical background

Age profile

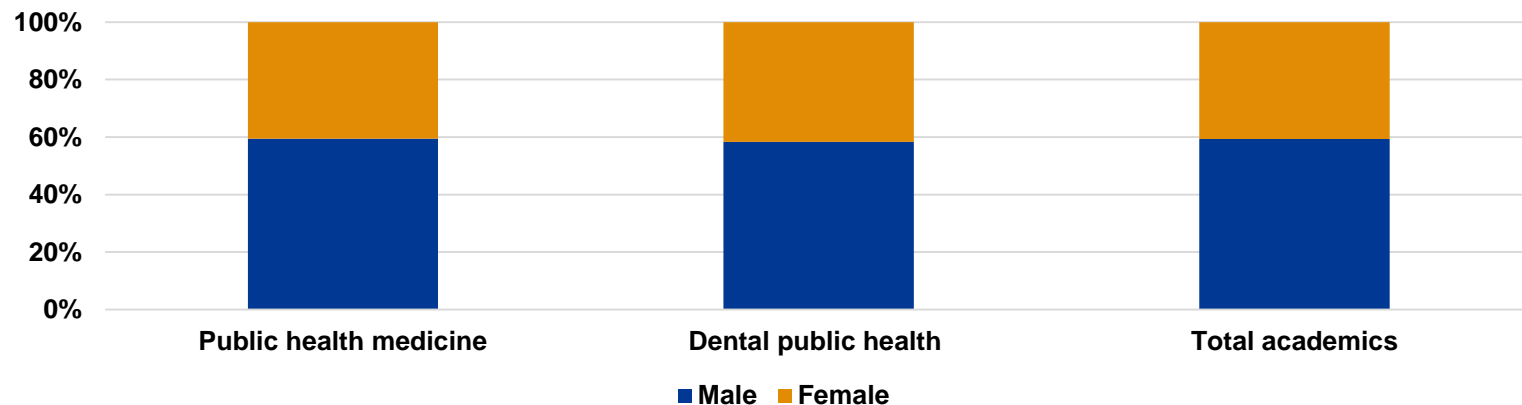
Age profile of public health academics in universities as recorded by HESA Staff Record, 2015-16



- The median age group for academics in 2015/16 was 50-54; nearly 70% are aged 50 or over
- Approximately 70% public health academics and nearly 60% of dental public health academics were 50 or over; 54% of dental public health academics and 46% of public health academics are over 55
- Public health academics tend to be older than those specialists employed by local authorities, but of similar ages to Directors of Public Health and PHE/NHS consultants

Gender balance

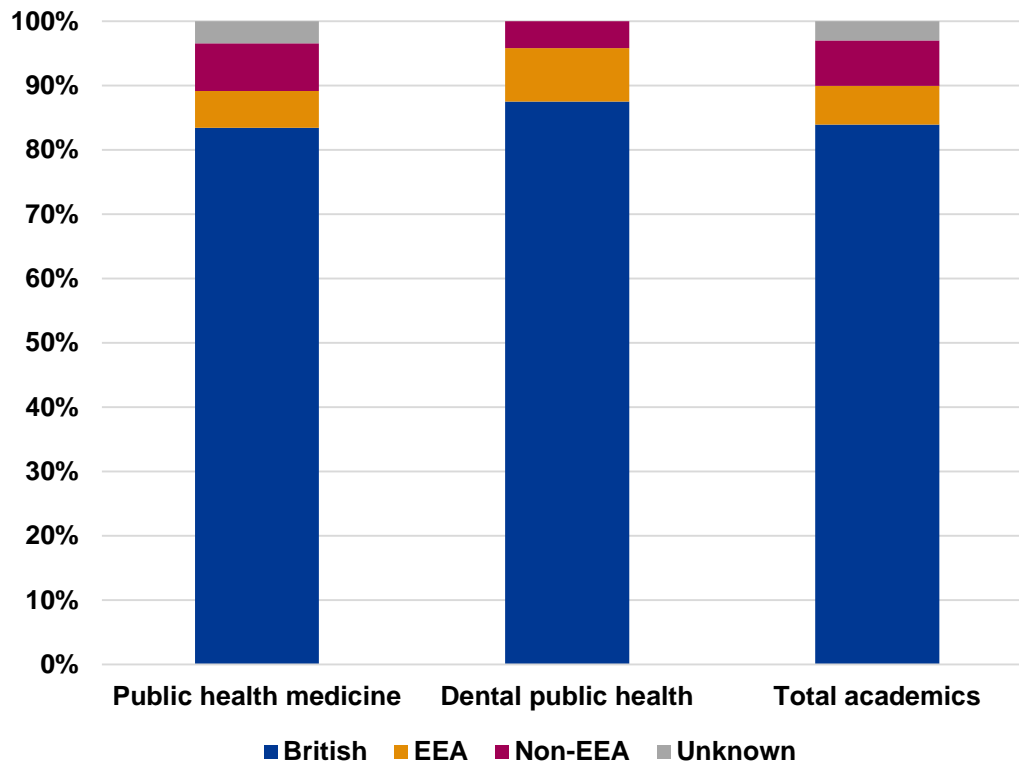
Gender balance in public health academics as recorded in HESA Staff Record, 2015/16 - headcount



- Overall, approximately 60% of academics in public health medicine and dental public health are men
- This contrasts with other sectors, where women are in the majority

Nationality

Nationality of public health academics as recorded in HESA Staff Record, 2015/16



- The vast majority of academics working in public health medicine or dental public health come from the UK
- 13% of academics come from outside the United Kingdom, with an additional 3% of unknown nationality

Summary: universities

Summary of findings

- **Approximately 200 public health academics work in the academic sector, with the vast majority from a medical background (over 90%)**
- **Older age profile – approximately 70% are aged 50 or over**
- **Approximately 60% are men, a strong contrast with other sectors**
- **13% of academics come from outside the UK**