

Workforce Resources



Skill Mix Analyser Tool

User Guidance Notes

The data contained within this tool is restricted and unpublished data and must only be used for management purposes within NHS Wales.

Please Note: Microsoft **Excel 2007** or a later Excel version is needed to run the tool



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Introduction

The Skill Mix Analyser Tool is a benchmarking tool that provides easily available comparative information that enables organisations to compare themselves with other organisations and track workforce configuration change over time. The tool provides the functionality to filter the data by Staff Group (AHP, Admin, M&D etc) or by Occupation Group (which include services areas, such as Physiotherapy, Audiology etc, and Medical & Dental Specialities, such as Cardiology, General Surgery etc). The tool uses additional information to give estimation on salary cost (based on midpoint) and staffing numbers per catchment population.

The Skill Mix Analyser Tool is designed as a comparative tool and should not be used for reporting. The data contained within this tool is restricted and unpublished data and must only be used for management purposes within NHS Wales.

What is included in the Skill Mix Analyser Tool?

Skill Mix Analyser Tool uses the following 3 data sources to provide benchmarking information for the 7 Welsh Health Boards and 3 Welsh Trusts. The data is available from 31st March 2009 to 31st March 2016:

Data Source	Area	Units
ESR Data Warehouse	Staff in Post	FTE (Contracted) Headcount
Stats Wales	Populations	2009 – 2012 Estimates 2015 Projections
NHS Employers	Mid Point Salary	Basic Salary cost (on-costs not included)

What can it be used for?

The Skill Mix Analyser Tool can be used to assist organisations in:

- Highlighting opportunities to improve their performance through benchmarking with others.
- Understanding trends in their organisation and whether they are consistent with national (Welsh) patterns.

Who is the intended Audience?

The Skill Mix Analyser Tool has been designed for Executive Directors and Senior Managers.

Limitations

When using the tool these points need to be considered:

- Worked hours are not included in the tool only 'Contracted hours'.
- The population (per 10,000) calculations are only a guide as some figures will be skewed:
 - Some Occupational Group services cover more than one Local Health Board.
 - Velindre NHS Trust, Public Health & WAST are national services.
- The salary calculations are based on basic salary at midpoint and do not capture the total pay or include on-cost.
- Not all Grade have a salary cost attributed to them e.g. Non AfC (see 'Notes tab' in the tool for full breakdown)
- This tool relies on the information within ESR Data Warehouse to be coded consistently across all NHS Wales' organisations.

How can the Skill Mix Analyser Tool be accessed?

The Skill Mix Analyser Tool will initially be circulated to designated individuals within each Organisation. These individuals will disseminate the tool to the appropriate people within their organisation.

Access to the tool will be managed via the Workforce & OD Directors in your Organisations

Feedback

This guidance is intended to be a 'living' document which will be reviewed and updated as required, and we welcome feedback and ideas for development.

Please contact Workforce Education & Development Services, NWSSP with your comments and suggestions weds@wales.nhs.uk

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Format of the tool

The guide has been “colour-coded” where possible to identify specific parts of the tool.

For example,

SELECTION FILTERS

or information boxes coloured

Select
Organisation

refer to the **control** or filter part of the page – where you make your selection concerning staff group and organisation.

GRAPH DISPLAY

or information boxes coloured

Graph Control

refer to graphs

Boxes coloured

DATA TABLE

or information boxes coloured

Data Table

refer to data displays

As with all the workforce tools, the controls or filters have similar options – using drop-down menus to select staff group, organisations, and dates, as well as options to choose graph formats. The following pages provide a visual guide on how to use the tool.

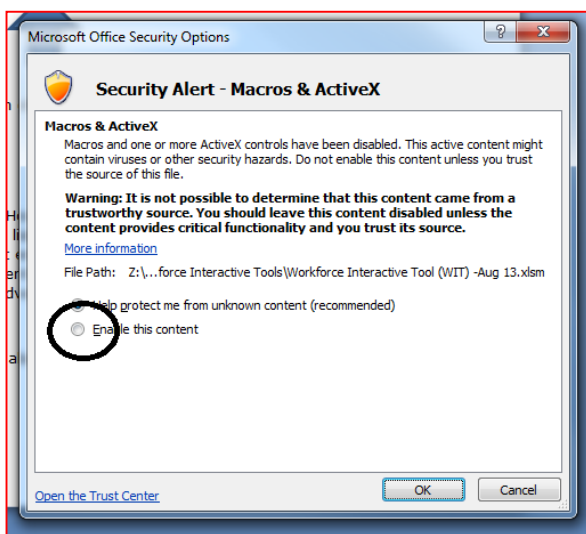
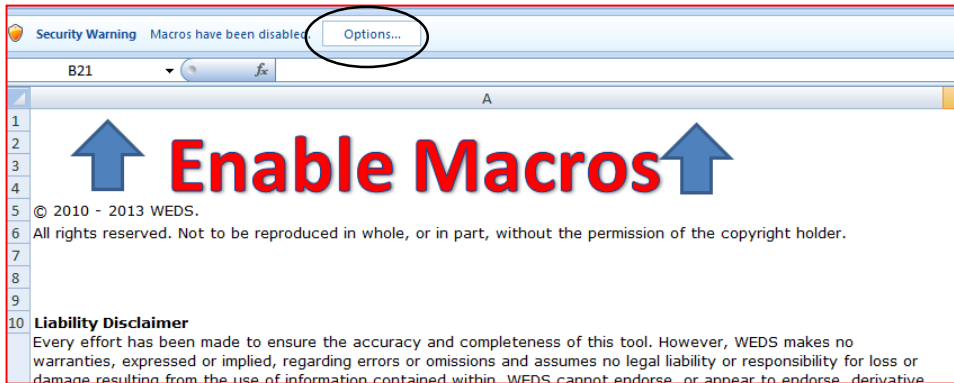
The following pages provide a visual guide on how to use the tool.

User Guide – Skill Mix Analyser

1. Starting the tool

Microsoft Excel requirements: Excel 2007 or a later Excel version.

On opening the Excel sheet macros must be enabled by pressing the 'Options...' button at the top of the excel sheet and enable the content. This will ensure all the code and functions within the tool work correctly.



GUIDE TO SKILL MIX ANALYSER CONTROLS

Full Page View

SELECTION FILTERS

Filter Group
 Occupation Group
 Staff Group

Select Occ Group

Select Occ Area

Date

Workforce Profile

Organisation Comparison

Date Comparison

GRAPH DISPLAY and GRADES & UNIT selections

NHS Wales
 ABMUHB
 Aneurin Bevan UHB
 Betsi Cadwaladr UHB
 Cardiff & Vale UHB
 Cwm Taf UHB
 Hywel Dda UHB
 Powys LHB
 Public Health Wales
 Velindre Trust
 WAST

Skill Mix Profile - All Staff Groups for NHS Wales

(as at Mar-2016)

Grades

 Individual Grades
 Grade Groups
 Staff Group
 Occupation Grade

Units

 FTE (Contracted)
 Headcount
 £ Mid Point (FTE)
 10,000 pop (FTE)
 10,000 pop (HC)

DATA TABLE

All Staff Groups

NHS Wales (2016-MAR)	FTE	Percentage of the Workforce	Population FTE	Mid point Cost
Estates & Ancillary	6,743.9	8.9%	21,538	£112,587,861
Additional Clinical Services	14,966.8	19.8%	47,799	£263,123,143
Admin & Clerical	15,284.7	20.2%	48,815	£368,515,354
Nursing & Midwifery	22,428.8	29.7%	71,631	£643,314,397
Allied Health Professionals	5,294.1	7.0%	16,908	£162,929,430
Add Prof Scientific & Techn	2,588.6	3.4%	8,267	£87,699,489
Healthcare Scientists	1,897.0	2.5%	6,058	£63,799,040
Medical & Dental	6,367.9	8.4%	20,337	£367,769,449

SELECTION FILTERS

Filter Group

Occupation Group
Staff Group

(See notes page at end of the guide for definitions of terms)

View if Occupation Group selected

Select Occ Group, e.g. Nursing Midwifery & Support, then select Occ Area, e.g. Cardiology

Reset Button

Clears selections

Date

Date

Information Button

Notes on data

View if Staff Group selected

Select a Staff Group from the drop down menu, e.g. All, Add Prof Scientific & Technical, etc

The screenshot displays the 'SELECTION FILTERS' section of the Skill Mix Analyser Tool. On the left, a 'Filter Group' panel has 'Occupation Group' selected. The main interface shows 'Select Occ Group' set to 'Nursing, Midwifery & Support' and 'Select Occ Area' set to 'Maternity'. A 'Date' dropdown is set to '2011-MAR'. A 'Reset Button' (circular arrow icon) and an 'Information Button' (info icon) are visible. A red callout box explains the 'View if Occupation Group selected' process. Below, the 'Filter Group' panel has 'Staff Group' selected, and the 'Select Staff Group' dropdown is open, showing a list of staff groups with 'Nursing & Midwifery' highlighted. A red callout box explains the 'View if Staff Group selected' process. At the bottom, 'Workforce Profile' is selected in the main navigation.

PROFILE VIEWS – FROM SELECTION FILTERS THERE ARE 3 OPTIONS:

SELECTION
FILTERS

Workforce Profile Organisation Comparison Date Comparison

Workforce Profile – “Christmas Tree” format

Filter Group

Occupation Group Staff Group

Select Occ Group All **Select Occ Area** All **Date** 2016-MAR

Workforce Profile Organisation Comparison Date Comparison

Grades

Individual Grades
 Grade Groups
 Staff Group
 Occupation Grade

Units

FTE (Contracted)
 Headcount
 £ Mid Point (FTE)
 10,000 pop (FTE)
 10,000 pop (HC)

Skill Mix Profile - All Staff Groups for NHS Wales

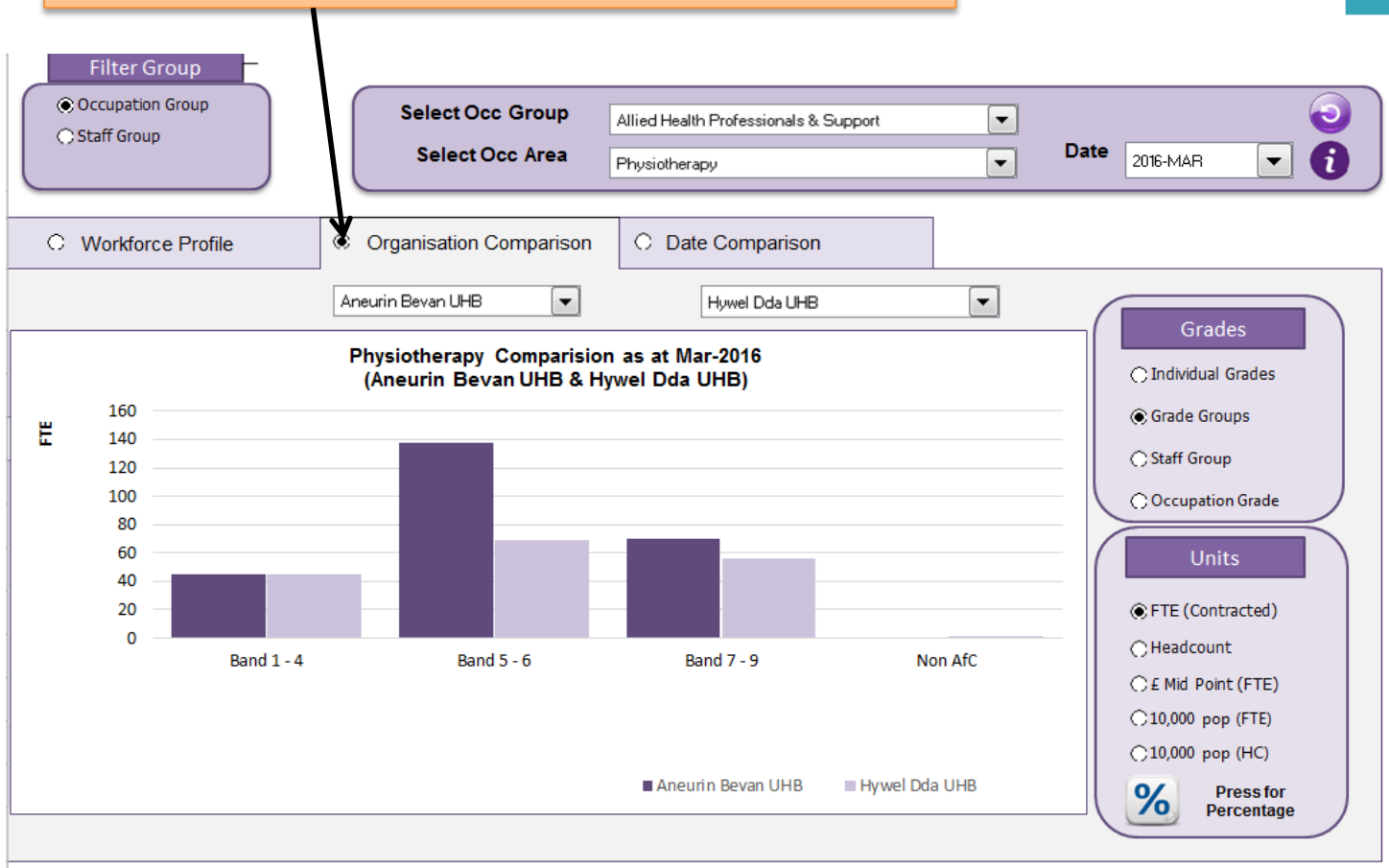
Staff Group	Percentage
Medical & Dental	8%
Healthcare Scientists	3%
Add Prof Scientific & Technical	3%
Allied Health Professionals	7%
Nursing & Midwifery	30%
Admin & Clerical	20%
Additional Clinical Services	20%
Estates & Ancillary	9%

(as at Mar-2016)

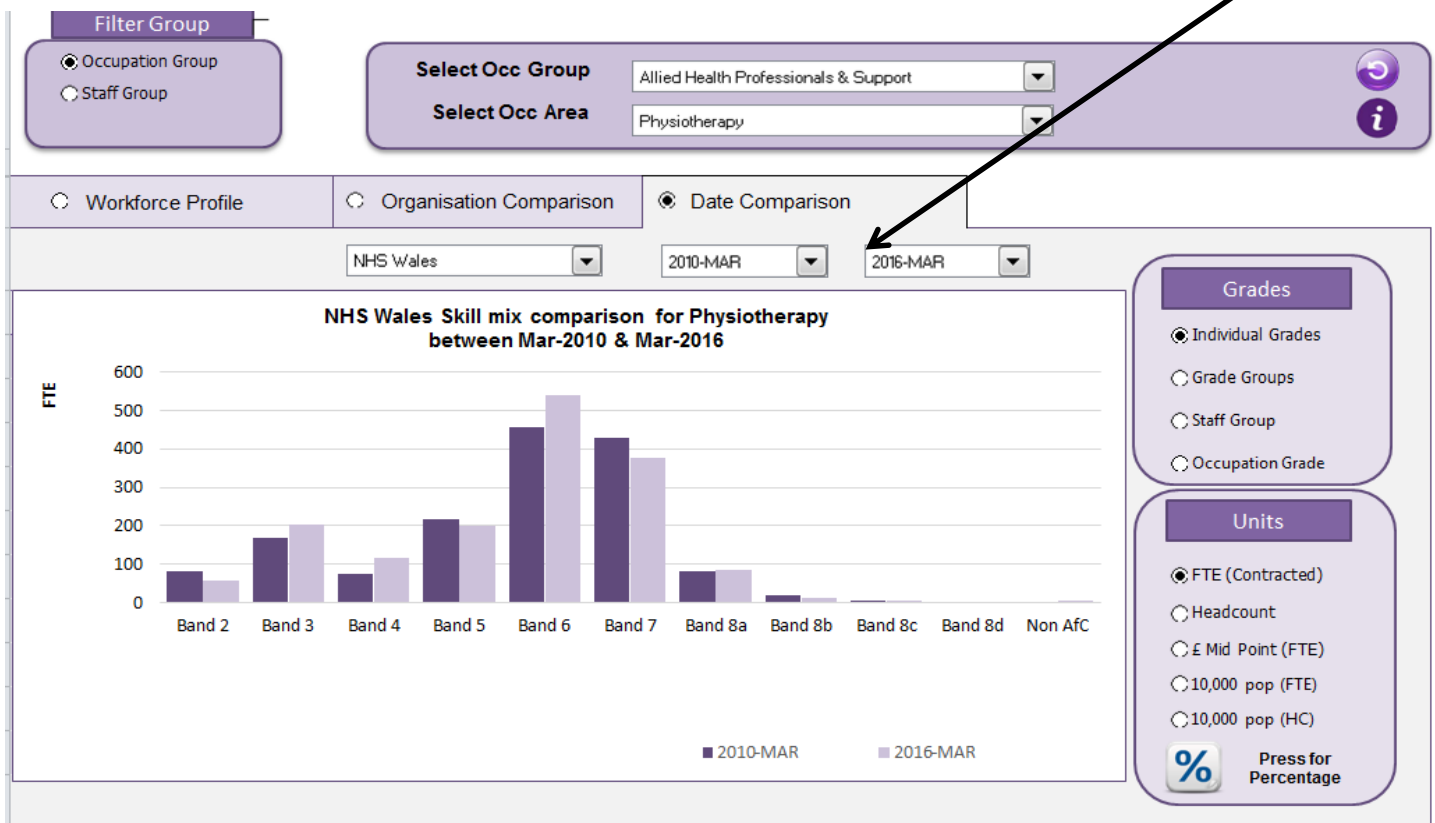
Organisation List: NHS Wales, ABM UHB, Aneurin Bevan UHB, Betsi Cadwaladr UHB, Cardiff & Vale UHB, Cwm Taf UHB, Hywel Dda UHB, Powys LHB, Public Health Wales, Velindre Trust, WAST

Double click on this list to select the organisation

Organisation Comparison – Compare two organisations



Date Comparison – Compare two dates




Grades

- Individual Grades
- Grade Groups
- Staff Group
- Occupation Grade

Units

- FTE (Contracted)
- Headcount
- £ Mid Point (FTE)
- 10,000 pop (FTE)
- 10,000 pop (HC)

 Press for Percentage

GRADES views data by:

Individual Grades – By individual Pay Bands

Grade Groups – By clustered Pay Bands

If **Staff Group** view selected – displays only staff groups relation to the selection

If **Occupation Grade** selected – e.g. HCA, Nursery Nurse, Nurse, Registered Midwife, Modern Matron, etc



UNITS views data by:

FTE or Headcount (the contracted hours do not include additional sessions or worked hours)

Mid Point – (£ Salary with no on costs at midpoint of pay scale)



10000 pop – (FTE or Headcount) – displays the number of staff per 10000 of the population in that health board geographical location

Select Data by Percentage or Number – toggle between

Percentage  and Actual Number 

This is the view if “Organisation Comparison” is selected in controls and “Compare Organisations” icon selected below

Physiotherapy

View All Organisations  Compare Organisations 

Compare Organisations (2010-MAR)	Betsi Cadwaladr UHB	Cardiff & Vale UHB	Variance Between two Organisations
Band 2	17.1	26.2	9.2
Band 3	30.1	32.1	2.0
Band 4	17.7	5.7	-12.1
Band 5	47.0	48.2	1.2
Band 6	97.5	99.3	1.9
Band 7	93.3	74.4	-18.9
Band 8a	11.0	21.1	10.1
Band 8b	3.0	6.0	3.0
Non AfC	0.2	0.0	-0.2
Grand Total	316.9	313.0	-3.9

DATA TABLE

If “Organisation Comparison” is selected and “View All Organisations” icon selected instead of “Compare Organisations”, then all organisations data is displayed

All Staff Groups

View All Organisations



Compare Organisations



DATA TABLE

...Or compare with “Two Dates” – for this view select “Date Comparison” in the Selection Filter. The end column shows the variance between the two dates selected but the table shows the data in all the individual dates in between, for your information.

NHS Wales	2010-MAR	2011-MAR	2012-MAR	2013-MAR	2014-MAR	2015-MAR	2016-MAR	Variance Between 2010 and 2016
Band 2	5.3%	4.8%	4.7%	4.7%	4.0%	3.9%	3.5%	-1.8%
Band 3	11.0%	11.5%	11.6%	11.1%	11.3%	11.5%	12.6%	1.7%
Band 4	4.8%	4.7%	5.0%	5.8%	5.9%	6.5%	7.3%	2.5%
Band 5	14.2%	14.2%	13.4%	14.7%	14.1%	12.9%	12.5%	-1.7%
Band 6	29.7%	30.4%	31.1%	30.8%	31.9%	33.2%	33.6%	3.8%
Band 7	28.1%	27.2%	27.0%	26.1%	25.9%	25.3%	23.5%	-4.5%
Band 8a	5.3%	5.5%	5.5%	5.2%	5.3%	5.2%	5.2%	-0.1%
Band 8b	1.2%	1.1%	1.2%	1.1%	0.9%	0.7%	0.8%	-0.4%
Band 8c	0.4%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.1%
Band 8d	0.0%	0.1%	0.1%	0.2%	0.3%	0.3%	0.2%	0.2%
Non AfC	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.3%	0.3%
Grand Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%

Highlight

Double click a cell in the left hand column to **highlight** the whole row for easier viewing

You can copy and paste the graphs and data table or just copy and paste the data and create your own graphs.

Definition of terms

Occupation Group – This provides a greater level of detail in segmenting the workforce, e.g. Physiotherapy, Cardiology, Community Nursing, Genetics, Hotel, Property & Estates.

Occupation Area – this provides over 190 different specialties or areas of work

Staff Group – The broad area of staff – Health care Scientists, Nursing & Midwifery, Medical and Dental

Grades Groups – Bands of grades such as SAS Doctors, Pay Bands 1 – 4, Non AfC

Individual Grades – Band 1, Band 2, Band 3, Foundation 1, Consultant, Dental Trainee
(This is the grade which determines the payment of salary)

Occupational Grades – Children’s Nurse, District Nurse, Paramedic, etc
(This is the grade which describes the job role of staff)

Your attention is also drawn to the tab on the tool called “Notes” where criteria tables are located which determine categories of grades, specialties – based on Occupational Codes, Midpoint Costs, and Catchment Population Estimates, etc.

SCREEN SHOTS FROM NOTES TAB

Risk Parameters based on Retirement age of 60	Grade Categories		
	Grade	Individual Grades	Grade Groups
If more than 50% of the workforce is under 50 = Green	Band 1	Band 1	Band 1 - 4
If more than 50% of the workforce is between 50-60 = Red	Band 2	Band 2	Band 1 - 4
If more than 25% of the workforce are over retirement age = Red	Band 3	Band 3	Band 1 - 4
If none of the conditions are true be Amber	Band 4	Band 4	Band 1 - 4
	Band 5	Band 5	Band 5 - 6
	Band 6	Band 6	Band 5 - 6
	Band 7	Band 7	Band 7 - 9
	Band 8a	Band 8a	Band 7 - 9
	Band 8b	Band 8b	Band 7 - 9
	Band 8c	Band 8c	Band 7 - 9
	Band 8d	Band 8d	Band 7 - 9
	Band 9	Band 9	Band 7 - 9
	Non AfC	Non AfC	Non AfC
	Director	Non AfC	Non AfC
	Consultant	Consultant	Consultant
	Consultant Locum	Consultant	Consultant
	Consultant Locum Max	Consultant	Consultant
	Clinical Director	Consultant	Consultant
	Medical Director	Consultant	Consultant
	Associate Specialist	Associate Specialist	SAS
	Clinical Assistant	NCCG - Closed Grade	SAS
	Hospital Practitioner	NCCG - Closed Grade	SAS
	Medical Practitioner	NCCG - Closed Grade	SAS

SCREEN SHOTS OF NOTES TAB

Midpoint - No On Cost	
Band	Mid Point Salary
Band 1	£ 14,653
Band 2	£ 15,642
Band 3	£ 17,794
Band 4	£ 20,638
Band 5	£ 24,312
Band 6	£ 29,759
Band 7	£ 35,536
Band 8A	£ 43,006
Band 8B	£ 50,854
Band 8C	£ 60,398
Band 8D	£ 72,358
Band 9	£ 87,588
Consultant	£ 83,646
Specialist Registrar	£ 38,758

	Catchment Population							
	Population Estimates & Projections							
	2009	2010	2011	2012	2013	2014	2015	2016
ABM UHB	512921	515420	517981	520158	522390	524672	526997	529345
Aneurin Bevan UHB	572518	574778	577077	578536	580074	581679	583337	585017
Betsi Cadwaladr UHB	648575	685911	688417	690911	693459	696047	698664	701290
Cardiff & Vale UHB	463818	467837	472121	476674	481307	486031	490838	495705
Cwm Taf UHB	292899	292952	293224	293727	294257	294810	295380	295953
Hywel Dda UHB	279051	380195	381867	383267	384713	386199	387720	389260
Powys LHB	133090	132878	133071	133382	133692	133997	134302	134600
Public Health Wales	3038872	3049971	3063758	3076656	3089894	3103436	3117239	3131172
Velindre Trust	3038872	3049971	3063758	3076656	3089894	3103436	3117239	3131172
WAST	3038872	3049971	3063758	3076656	3089894	3103436	3117239	3131172
NHS WALES	3038872	3049971	3063758	3076656	3089894	3103436	3117239	3131172