

Unit 14: Scientific Basis of Healthcare Science: Epidemiology and Public Health

Level:	4
Unit type:	Optional (General Healthcare Science)
Credit value:	10
Guided learning hours:	80

Unit summary

In this unit, you will be introduced to epidemiology and public health in the context of individuals referred to healthcare science services. This will provide you with a broad base on which to build your knowledge, skills and professional practice as you move through this programme of learning.

You will be introduced to each subject area through the learning outcomes and associated additional information. You will then deepen, develop, and apply your learning in the context of the healthcare science division and specialism in which you are working.

Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

Additional information

AC1.1 includes:

- National Institute for Health Protection (NIHP), Public Health England and related UK organisations
- World Health Organisation.

AC2.1 includes:

- public health surveillance
- health protection
- health improvement
- infectious disease control and emergency planning.

AC2.2 includes:

- public health surveillance
- health protection

- health improvement.

For AC4.1 discuss the prevalence of **one** condition.

For AC4.3 evidence of the effectiveness of public health intervention should be assessed.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand basis of epidemiology, public health and evidence-based medicine	1.1	Discuss epidemiology and public health, and the relationship between them citing specific examples			
		1.2	Explain how the scientific methods of epidemiology and those methods used to study health conditions and diseases complement each other and contribute to evidence-based medicine citing specific examples			
		1.3	Discuss the incidence and prevalence of a common disease experienced by patients citing specific examples			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand public health functions and how these can improve the health of populations	2.1	Explain the local, national, and international role of the public health function			
		2.2	Explain how changes in population demographics impact on public health			
		2.3	Explain the role of public health infectious disease services in control of infection and responding to infection outbreaks citing specific examples			
		2.4	Discuss the process and applications of health needs assessments			
3	Understand the principles and applications of disease prevention and disease screening	3.1	Discuss the three levels of disease prevention and the factors known to inhibit each level			
		3.2	Discuss criteria for disease screening programmes and limitations of such screening			
		3.3	Explain the differences between screening tests and diagnostic tests and cite specific examples			
		3.4	Discuss different screening programmes in the UK, their organisation, quality assurance and potential limitations			
		3.5	Explain the factors that lead to effective screening programmes			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Understand the relevance of epidemiology and the impact of public health programmes on own area of practice	4.1	Discuss the prevalence of a condition affecting patients referred to healthcare science services in the UK and internationally			
		4.2	Explain international, national, and local initiatives to positively affect the conditions described in 4.1			
		4.3	Assess the evidence of the effectiveness of public health interventions			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)