13.7 Public health and health systems

Name: _____ Class: _____ Date: _____ **Total: 24 marks**

KEY WORDS screening • over-diagnosis

Objective

Level the prevention; test the screen; name the system.

1 Key knowledge and worked examples

■ **Three levels + criteria**

Primary prevents (vaccination); secondary screens the well; tertiary limits damage ✓. Screening: important, treatable-early, valid, acceptable + pool arithmetic (yield is PPV) with over-diagnosis counted ✓.

■ **Worked example: financing**

Beveridge (taxation, national service), Bismarck (social insurance), private, out-of-pocket – each sets coverage, payment, gatekeeping ✓.

2 Practice

2.1 Which level is smoking-cessation advice? [3]

2.2 Why does a screen test "the well"? [3]

2.3 Name the two financing models built on pooled public funds. [3]

3 Exam-style questions

3.1 A fictional country considers a screening programme for a common cancer: prevalence of detectable pre-clinical disease 2 %; test Se 90 %, Sp 90 %.

Compute the yield per 1,000 screened (20 diseased → 18 TP; 980 well → 98 FP → PPV 18/116 ≈ 15.5 %) ✓. Judge against the criteria (condition important ✓; treatable early – is the pool real?) and count the harm (98 false positives per 1,000, over-diagnosis risk) ✓. State the one design lever that most changes the yield (the screening interval – the pre-clinical pool) ✓. [8]

3.2 Two fictional systems: Beveridge-funded with gatekeeping generalists; Bismarck-funded with free specialist access.

Contrast coverage and payment at the point of care (tax-funded, free at use vs wage-funded insurance) ✓. Predict one access consequence of each (gatekeeping delays but coordinates; free access raises use and cost) ✓. State in one line why every consultation inherits these macro-choices ✓. [7]