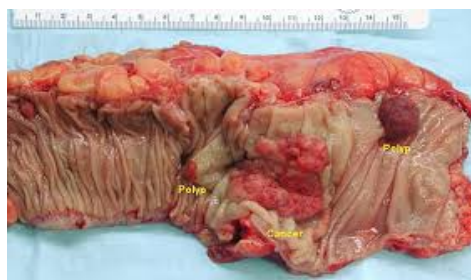


## Early Detection of Disease

Early disease diagnosis results in improved patient outcomes

### Bowel cancer

- 1 in 20 lifetime risk.
- 2<sup>nd</sup> leading cause of cancer death.
- 16,000 deaths/year.



### UK National Bowel Cancer Screening Programme

- ~50 percent screened patients staged Duke's A (95 percent survival) compared to 10 percent non-screened population.
- Two yearly screening aged 60–69 years.
- reduced risk of dying of bowel cancer by 16 percent.



**Problem:** only 50 percent compliance with screening

### Screening for other colorectal disease

- Inflammatory bowel disease: 1 in 250 UK population, mortality 0.3/100,000/year in young patients, high morbidity.
- Diverticular Disease: affects >50 percent over 60 years; 8 percent of non-cancer GI deaths; \$2.6 billion direct medical costs/ year.
- Nutritional disorders.
- Diarrhoeal disorders.

### Screening

- Media: blood, faeces, urine.
- Modalities: biosensing, radiology, endoscopy.

**Unmet Clinical Need:**  
improved, patient-compliant tests for bowel cancer and other gastrointestinal disorders

