Saliva monitoring:

Beneficial to detect the presence of drugs, monitoring healthy mouth conditions, and detecting Gastroesophageal Reflux Disease (GERD) events.

Like blood, saliva is a complex fluid containing a variety of **enzymes, hormones, antibodies, antimicrobial constituents, and growth factors.** Many of these enter saliva from the blood by passing through the spaces between cells by transcellular (passive intracellular diffusion and active transport) or paracellular routes (extracellular ultrafiltration).

1. Salivary Glucose: gingival crevicular blood (GCB) as an assessment method to measure glycaemia among diabetics
2. Salivary Lactate: high level lactic acid – increased ph level of blood- lactic acidosis – muscle damage- heart attack
3. Salivary Phosphate: via saliva secretion and swallowing - endogenous phosphate at high levels - to hyperphosphatemia - cardiovascular calcification among chronic renal failure patients - high morbidity and mortality, especially among haemodialysis patients.

SP and oral health can be used to predict the development of dental caries and formation of dental calculus.

SP level is also used as an indicator of ovulation, which aids women to predict their fertile period, especially for the treatment of infertility

The human salivary phosphate level may be an early biomarker of the genesis of obesity in children. Height, weight, blood pressure, heart rate and fitness are used to measure and record. Samples of saliva and plasma are collected and frozen at -80C.

Sample space:

* Children Age range from 10 to 12 years

Device used to measure phosphate levels:

**Monitoring alcohol using saliva**

Scenarios

Diagrams (sweat dictates)

Flow diagram – sweat- chemical componenet- flow into smartphone- algorithm – how is it gna predicts- liver kidney lung ( issue and problems)

Weekle, daily measurement – over period of time

Cross validity –

Describe database