

National Quality Improvement Conference

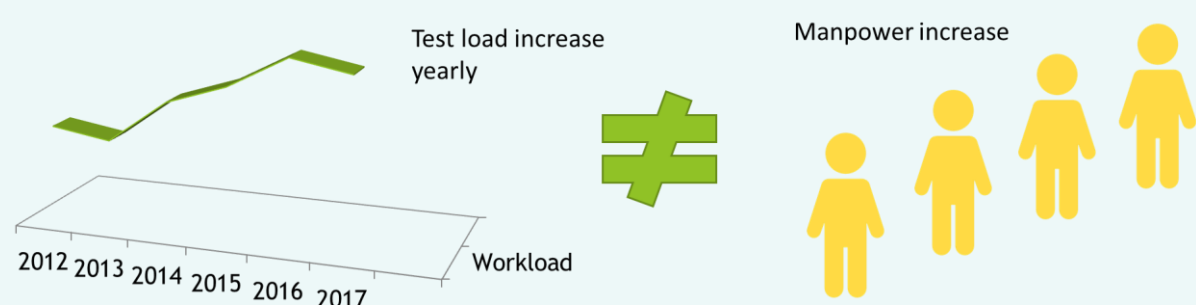
Using Technologies to Transform Laboratory for Better Quality and Care

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Problem Statement

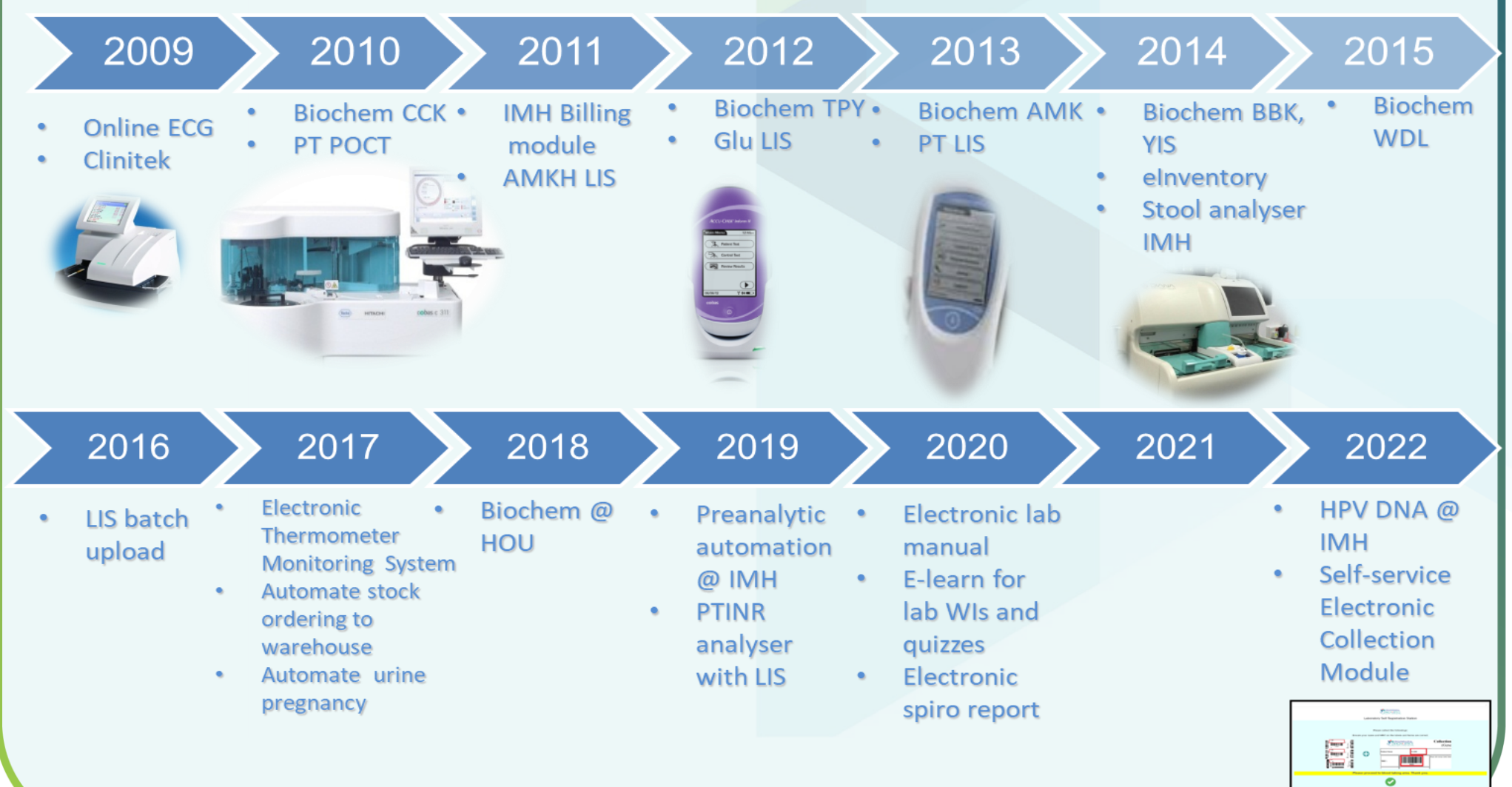
1. It is not sustainable to increase headcount with workload increase yearly
2. Manual processes is prompt to transcription error especially in result reporting
3. Manual method is also open to human subjectivity in result interpretation. There is accuracy but may not be precise.
4. Staff retention was a concern due to small laboratory set up with less sophisticated analyzers



Potential Solutions

NHG Diagnostics started its transformation since 2009 from technologies adoption to software customerisation to replace manual processes for better work efficiency and clinical outcomes, and to create continuous learning opportunities to upskill staff.

NHG Diagnostics Laboratory Automation Milestones



Project Aim

Any manual process is prompt to transcription error and open to subjectivity in lab test processing. With workload increase, it is not sustainable to recruit depend on manpower. The plan was to automate manual processes through new analysers / technologies to improve productivity without incurring additional manpower, and keep best quality and standards.

Lessons Learnt

An implementation change is never easy. It is important to let team know why the needs for the change and the regular follow up with them to make sure things are working fine. From past implementations till now, lesson learnt are

- To always involve the reps in all matters for them to 'sell' it back to their team. It should never be a top down approach. You need involvement from all parties.
- To maintain the support line for at least a year. You need them to know that they are never alone and if anything there is always someone out there to support / assist.

Outcomes & Impacts

Clinical Improvements

- Improve patient management. With more tests provided onsite, patients requiring immediate action can be attended with results within an hour within the same day with no repeat technical visit
- Results available within same day also allows clinicians to be inform of critical results during office hours to better manage the patient with readily information

Staff retention

- By providing new learning opportunities for staff through new implementations, it has also created a platform for staff to upskill themselves and noticeable reduction in resignations from lack of learning opportunities

Automation had negated need for manual result transcription for more than **90,000 tests** per year. Patients requiring immediate attention can have results available within an hour.*