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## ***Preventative Medicine***

“By regularly assessing the overall functionality of your body, you can potentially identify certain underlying health issues before they present as complications or illness”

## ***What is Preventative Medicine ?***

## ***Types of Preventative Medicine***

- Vaccination
- Daily and moderate physical exercise
- Reducing obesity
- Healthy nutrition – E.g. fruit & vegetable intake
- Fluoridation of water & regular teeth cleaning
- Smoking cessation
- Monitoring Blood Pressure & Cholesterol
- Protection against Sexually Transmitted Infections
- Genetic profiling

## ***Types of Preventative Medicine***

- Increased focus on mental health & stress reduction
- Suicide awareness
- Addiction awareness
- Increased focus on work related stress
- Focus on Men’s Health [and Women’s Health too !]
- Holistic, whole person view of health
- Awareness of factors that can contribute to ill health
- Work life balance
- Health campaigns – public & professional education

## Prophylaxis



- Any medical or public health intervention whose purpose is to prevent rather than to treat or cure a disease
- This can be:
  - Primary prophylaxis – to prevent the development of a disease
  - Secondary prophylaxis – where the disease has already developed and the patient is protected against worsening of the condition

## Prophylaxis



- Can be used for all individuals from foetal wellbeing right through to adult health and can even look at genetic makeup to check for likelihood of possible future ill health

## Other Examples of Preventative Medicine



- Malaria prophylaxis
- Breast feeding
- Breast screening
- Cervical screening
- Water sanitation
- Hand washing
- **Regular Health Assessments...**

## Regular Health Assessments



- Comprehensive enough to:
  - Identify underlying problems
  - Bring together other aspects of Preventative Medicine
- Can be achieved through:
  - Sufficiently detailed blood tests
  - Genetic profiling
  - Personal health measurements
  - Scans & procedures
  - Clinical examinations

## Global Health Revolution



- Increased focus world-wide on regular health assessments and screening

### Japan

- Longest life expectancy globally
- 10.7 years LONGER than the rest of the world
- Partly due to “Ningen Dock” – annual health screen  
(Literally “Human Dry Docking Service”)



## Global Health Revolution



### Cuba



- Highest life expectancy for a “developing” country
- Due to basic but regular health assessment

## Global Health Revolution



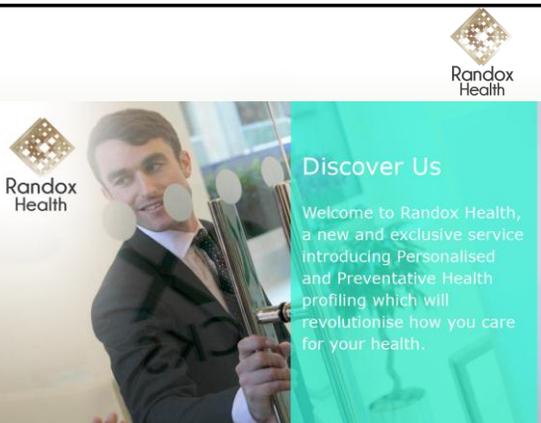
- What about the **UK & Ireland** ?
- NHS ?
- Private Screening Companies ?
- **Randox Health**



## Regular Health Assessments

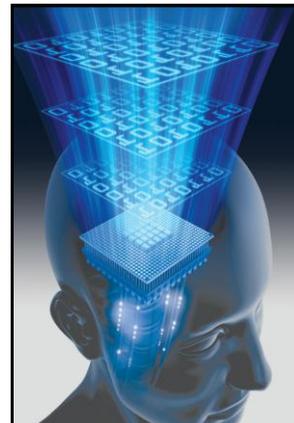


### The Randox Health approach to Preventative Medicine



**Discover Us**

Welcome to Randox Health, a new and exclusive service introducing Personalised and Preventative Health profiling which will revolutionise how you care for your health.



**First and only health experience of its kind...**

- Personalised Health Profiling
- Highly Detailed and Comprehensive
- Truly Personalised and Preventative Medicine

## Background



- Randox Health has its origins in the parent company, Randox Laboratories

# RANDOX

- Over 900 people employed worldwide
- Manufacturer of nearly 10% of all clinical chemistry tests worldwide
- The birthplace of "BioChip Array Technology"
- Products in use in 145 countries
- £200 million investment in R&D

## Background



- Over 100 awards including 5 Queens Awards for Enterprise Achievement
- Randox products are used in helping to diagnose 200 million patients worldwide
- It has been estimated that every second of every day, 80 Randox tests are being used somewhere in the world

## Evolution & Development



- In 2010, rising out of this rich heritage was born “Randox Health Checks”

**RANDOX**  
HEALTH CHECKS

- In 2012, rebranded as “Randox Health”



Randox  
Health

## Randox Health



A unique and innovative *collaboration* between *world class scientists* and *dedicated medical professionals* working together to offer new diagnostic solutions directly to the public



## Video 1



## Video 2

## Biochip Array Technology...



A drop of blood can be decoded by **RANDOX** Biochip Technology to reveal a vast amount of knowledge about current health status, lifestyle requirements and...



**FUTURE HEALTH STATUS**



## New Revolution: Emergent Health

- Many health issues are easily prevented, treated and diagnosed through accurate, comprehensive and simultaneous testing
- Randox Health specialise in ‘*Emergent Health*’ – by simultaneously assessing the different functions of the body, to give a detailed analysis of current health and how health status may change in the future...

## Overall Health



- Rather than fragmented specialties Randox Health takes an overall view of the entire body as many bodily functions are inter-related to each other
- E.g. when Thyroid Function is under-performing, this can affect Cholesterol levels – thus possible Thyroid dysfunction should be corrected as part of management strategy for addressing high Cholesterol

## Overall Health



- The body is a complex network of organs and tissues
- Organs, such as the heart, liver and kidneys do not function independently and their performance is affected by other organs and tissues within the body
- By combining individual test profiles, a more complete picture of health and wellbeing can be obtained

## Comprehensive Wellbeing Packages



## Health Enlightenment



Central to the Randox Health approach is Health Education...

Or..

*“Health Enlightenment”*

## Health Enlightenment



Empowering individuals to understand their health with...

Award winning technology

Health profiling

Medical Excellence

Scientific Expertise

## Health Enlightenment



Randox Health understands the complexity of your health...



*...Now for the first time ever, so can you...*

## Personalised and Preventative Health...



- A Personalised Randox Health Account is now the ultimate form of “Healthcare” and **Preventative Medicine**
- Applying science to the diagnostic process
- Uniting scientific expertise and medical excellence, to welcome you to the future of your health today
- Health profiling can determine a cause, aid early diagnosis and may prevent onset of illness

## Personalised and Preventative



- Some people attend with symptoms and are investigated appropriately
- Some people attend without symptoms – pre-symptomatically targeting their health can empower them to:
  - Make personal improvements
  - Catalyse wellness
  - Prevent future illness

## Track changes in health



*A Personal Randox Health Account empowers people to:*

- Identify the early onset of disease
- Counteract any imbalances in their health
- Personally “**target and track**” the changes in their body to prevent ill health

## What sets us apart...



- Within the NHS, traditionally 1-5 tests per patient will be performed
- Standard private healthcare companies may offer “Premium Packages” of approximately 30-35 routine blood tests
- **Randox Health offers up to 300 tests !**

## Randox Health Packages



- Specially formulated to make it easy to select from the world’s most highly anticipated personalised and preventative health assessments

Premium Packages

Lifestyle Packages

RH Customise

Health Enhancements



## Health Evolution

Your mind, your body, your well-being... bring your health to life with Randox Health.



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## The Journey through the Randox Health Experience



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## First Contact and Booking



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### **Booking Folder...**

*Upon booking an appointment at Randox Health, each person receives a Booking Folder with all relevant information*



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### **Booking Folder...**



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### **Booking Folder...**

*Includes:*

- *Directions & Contact Details*
- *Appointment Time*
- *Preparation for Appointment – fasting etc.*
- *What to expect*
- *When results will be ready*
- *How to arrange Private GP Consultation*



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## Initial Appointment



### Initial Appointment

- Duration: 30-45 minutes
- Personal, Medical and Lifestyle Consultation with a Randox Health Specialist Nurse
- Variety of personal health measurements
- Simple collection of blood and urine samples
- Healthy snack before leaving



## Processing & Delivery of Results

### Next Step

- Randox Laboratories process the blood and urine samples quickly and efficiently following strict quality control process
- Results obtained and personalised Randox Health profile is generated
- Usually rapid turnaround time of under 48 hours, however may take 5 – 7 working days depending on chosen health package



**Results can be received by post, e-mail, online or collected in person from an RH venue**



## Follow up Consultation



### Consultation

- Randox Health have a team of highly qualified clinical scientists and specialist doctors to perform all Private Consultations
- Consultations available face to face at any RH location, or by telephone, or at workplace or other convenient location – the personal preferences of our clients are always a priority





- Consultation**
- Personal Randox Health account entitles you to a Private Consultation and a complimentary ongoing contact service with RH Private GPs
  - Results are discussed in full, with any health concerns.
  - Management and treatment plan discussed



- Outcomes following Consultation**
- Dietary, & lifestyle advice
  - Specific & targeted treatment of abnormal results
    - E.g. Vitamin B12, Folic Acid or Vitamin D supplementation
  - Further investigations as required
  - Specialist Referral to relevant Consultant within Randox Health Network of Consultants & Specialists
  - Ongoing follow up, contact and review

**Corporate Health Assessment ?**

- Tests can be tailored to the needs and budgetary requirements of each company
- Samples taken and personal health measurements carried out on site
- Consultation service can also be delivered on site, over the telephone, or at any Randox Health location



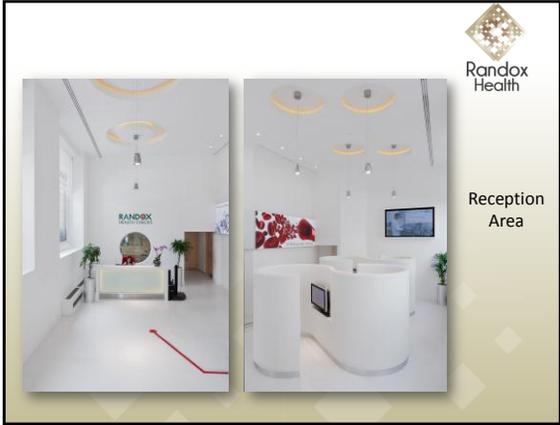
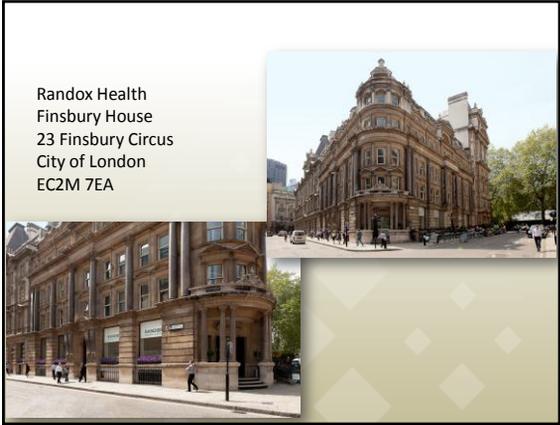
## Where to find Randox Health

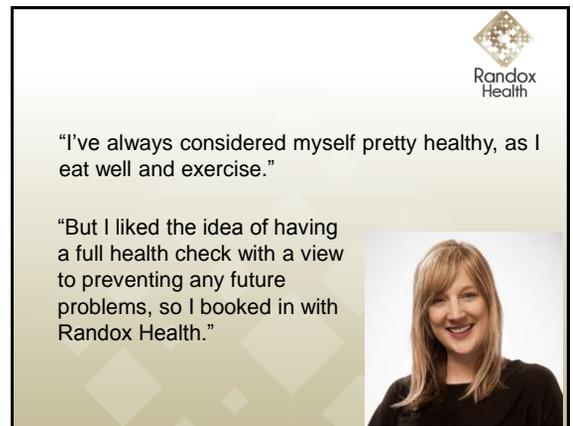
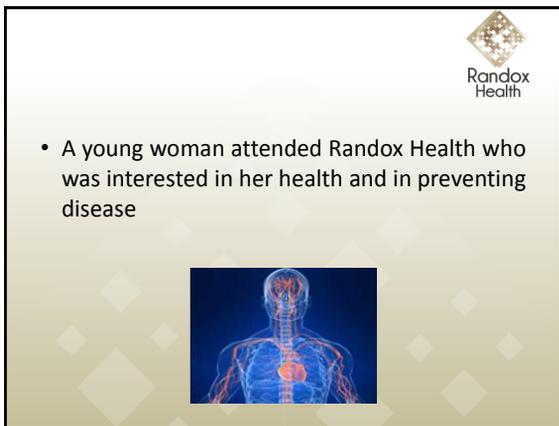
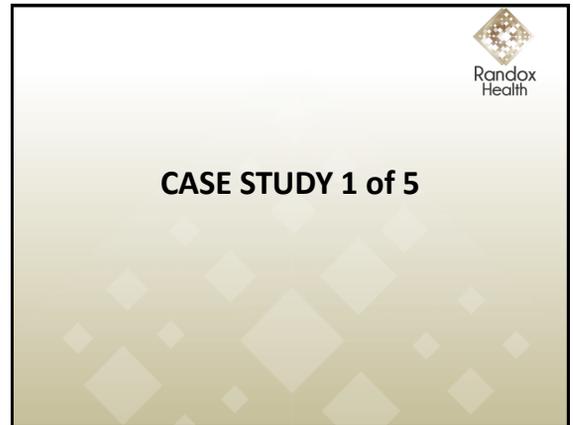
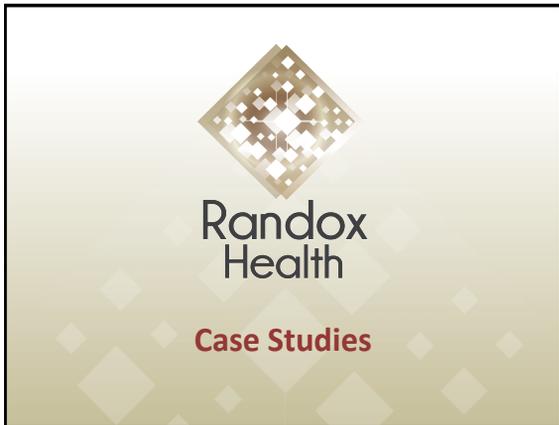
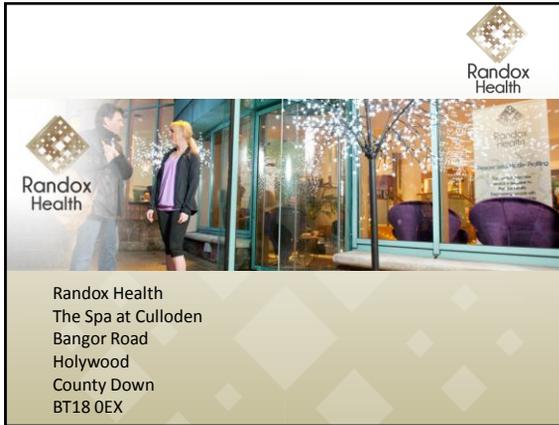
**2 clinics in Northern Ireland**

**1 clinic in London**



[www.randoxhealth.com](http://www.randoxhealth.com)







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“I knew things wouldn’t be 100% perfect, but I was still shocked to discover that my Vitamin D levels were virtually non-existent and I was dangerously deficient.”

“On seeing my results, my GP put me on a high dose of Vitamin D supplements straight away, saying that if I didn’t improve my levels quickly I could be at risk of developing an autoimmune disorder or brittle bones.”



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Could a lack of Vitamin D be making you sick?

**Mirror**

1<sup>st</sup> May 2012



<http://www.mirror.co.uk/lifestyle/health/could-a-lack-of-vitamin-d-be-making-813009>



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• **Vitamin D deficiency**

- Very common – recent evidence suggests more than half of adults in the UK may be deficient.
- In the winter and spring about 1 in 6 people have a severe deficiency.
- Estimated 9 in 10 adults of South Asian origin may be Vitamin D-deficient.
- Most affected people either have no symptoms, or may have vague aches and pains, and are unaware of the problem.



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**CASE STUDY 2 of 5**



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- A young man attended Randox Health as he was interested in tests to assess his overall health and wellbeing.
- He was feeling very well and had no symptoms of note.
- However, analysis revealed elevated levels of several iron associated markers in the blood.



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Randox Health

- He was then diagnosed with **Haemochromatosis**
  - Inherited, genetic disorder characterised by iron overload – due to excess iron absorbed from the diet.
  - One of the most common genetic conditions in UK.
  - As many as 1 in 200 people are likely to be at risk.
  - People of Celtic origin have even higher incidence.
  - Usually symptom free in early stages.
  - Symptoms are often seen in men between the ages of 30 – 50 and in women over 50 years old.



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- His diagnosis then triggered testing for the rest of his family. Subsequently his brother was also diagnosed with this hereditary condition.
- Both gentlemen are now being treated accordingly.
- The comprehensive health check enabled the identification of this condition in both young men, even though there were no initial symptoms or relevant family history.
- Without this early identification, more significant long term damage may have resulted e.g. liver & heart disease.



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### CASE STUDY 3 of 5



Randox Health

- A 50 year old man attended Randox Health Checks for a comprehensive health screen.
- He was overweight, his father died following a heart attack and his mother suffered from high blood pressure.
- He was feeling well however, but admitted to a stressful lifestyle and poor diet.



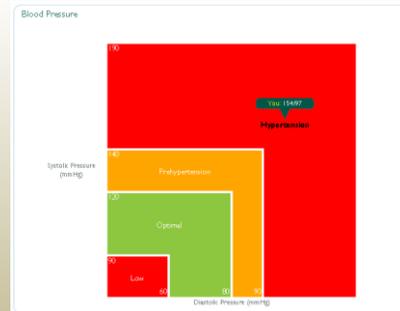
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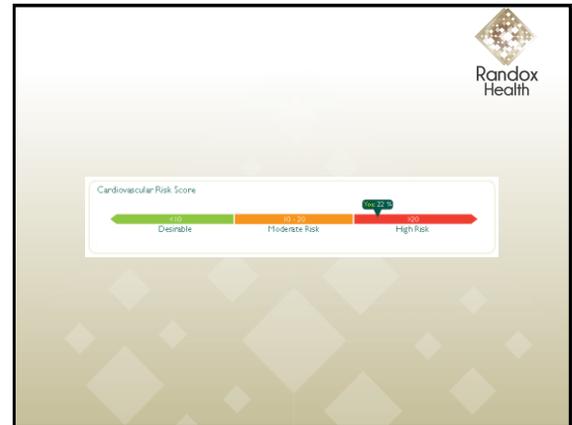
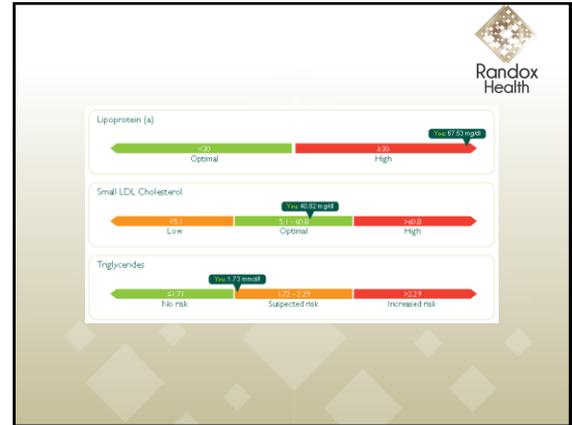
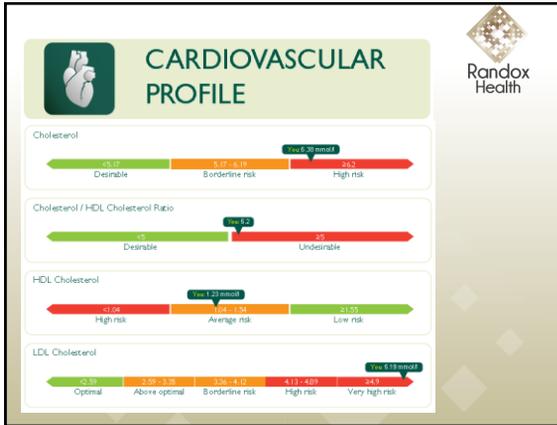


### PERSONAL HEALTH MEASUREMENTS



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- **Increased Cardiovascular Risk** ➔ 22%
- **Dyslipidaemia**
  - Increased Total Cholesterol & LDL Cholesterol
  - Decreased HDL Cholesterol
  - Increased Lipoprotein (a)
  - Decreased Apo A-1 & Apo E
  - Increased Apo B, Apo B / A-1 Ratio, Apo CII, Apo CIII
- Identification allowed appropriate dietary intervention (i.e. low fat diet) & tailored pharmacological treatment.
- Outcome – reduced Cardiovascular Risk & reduced morbidity.

**CASE STUDY 4 of 5**



Randox Health

- A lady attended Randox Health who was interested in Preventative Medicine and Wellness
- She reported no unusual symptoms
- An elevated level of blood was detected in a urine sample using a urinalysis test



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- The lady was prescribed a course of antibiotics by her GP but the issue was not resolved
- She was referred to a urologist and a cancerous tumour in her bladder was identified
- This has been successfully removed and no further treatment is required



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As the urologist said:

“You were very fortunate to have had the comprehensive health check which enabled the detection of a cancerous bladder tumour at an early stage, even though you presented with no initial symptoms”



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## CASE STUDY 5 of 5



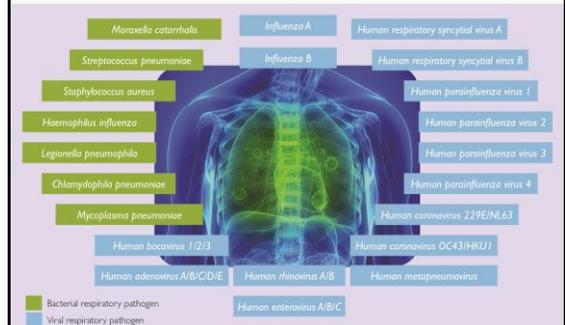
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- Involves a family of 2 parents and 16 month old baby.
- The baby was unwell and presented with a persistent, productive cough and high fever.
- Prescribed course of antibiotics (Penicillin) however symptoms persisted.
- Mum also developed similar symptoms, and later Dad as well.
- Samples were taken from both mother and child for analysis using our **Respiratory Pathogen Biochip Array**



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### Respiratory Pathogen Biochip Array





- Child's results indicated the presence of three bacteria and one virus:
- *Streptococcus pneumoniae*
- *Moraxella catarrhalis* - Resistant to Penicillin
- *Haemophilus influenzae* - Resistant to Penicillin
- *Human Bocavirus*
- The test report was reviewed by the clinician and a more appropriate antibiotic was prescribed (Clarithromycin).
- The child responded well and is now fully recovered.



- Mother's results indicated the presence of two bacteria:
- *Streptococcus pneumoniae*
- *Moraxella catarrhalis* - Resistant to Penicillin
- Again, Clarithromycin was prescribed and within several days she improved and is now completely well.
- This result enabled treatment to be tailored to the specific needs of the patient, thus facilitating recovery.



- Personalised, individualised healthcare
- Treatment tailored to the individual
- Reduced prescribing of inappropriate antibiotics
- Improved outcome
- Reduced cost



## OTHER EXAMPLES OF COMMONLY DETECTED ABNORMALITIES AT RANDOX HEALTH



- Diabetes
- Iron deficiency anaemia
- Vitamin B12 deficiency
- Folic acid deficiency
- Other nutritional problems
- Helicobacter Pylori infection
- Abnormal liver function tests
- Hyperthyroidism
- Hypothyroidism
- Abnormal kidney function

...and many more...

Your Results...



## Lives Changed

We are saving  
or  
significantly improving  
1 life per week  
across  
the UK and Ireland \*



\* Internal Audit, December 2012



Randox Health

## Your mind, Your body, Your health

*...Brought to life with Randox Health*



# Randox Health



Randox Health

- Empowering the individual
- Enabling to take control of their health  
*“Your health in your hands”*
- Comprehensive testing
- World class, Personalised Health Profiles
- Earlier diagnosis and treatment  
*“Prevention is better than cure”*
- Better outcomes
- Reduced costs – health, financial, wellbeing



Randox Health

...By detecting conditions or risk factors early...

...you can take steps to treat existing conditions...

...and prevent or reduce your risk of future health problems...



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In other words, true...

## *Preventative Medicine*



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## *Preventative Medicine*

“By regularly assessing the overall functionality of your body, you can potentially identify certain underlying health issues before they present as complications or illness”



Radox  
Health

- Please visit our exhibition stand and speak with us about Radox Health
- Come and visit us at one of our 3 clinics
- Thank-you for listening



Radox  
Health

Dr Gary J Smyth  
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General Practitioner & Medical Advisor



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