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Wider health intelligence networks: what can we learn?

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Cancer Outcomes Conference

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Improving outcomes for cancer patients



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Developing Health Intelligence Networks Our Strategic Approach



INTELLIGENCE INTO PRACTICE

To embed information/intelligence into local service improvement



TOOLS AND RESOURCES

To continue to develop relevant and timely tools/resources through a single portal



DEVELOPMENT

To take a strategic lead on the creative/innovative development of information

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Not a standing start

National Cancer Intelligence Network (NCIN)

www.ncin.org.uk/home

Child and Maternal Health Observatory (ChiMat)

www.chimat.org.uk

National Diabetes Information Service (NDIS)

www.yhpho.org.uk/resource/view.aspx?RID=102082

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Review of NCIN (1) – positive feedback

- vision and leadership
- multi-agency working
- linkage of cancer data*
- harnessing capacity to develop site-specific expertise
- attention to rare and less common cancer groups
- change agent for the cancer registry community
- value of analyses in informing national advocacy

* “From poor quality, disconnected information and intelligence systems to something close to the most comprehensive in the world. The future is bright.”

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Examples of valuable work

“The Routes to Diagnosis (RTD) work was mentioned as being of key importance, while others identified the outcomes data, mapped to cancer site and region/ cancer network as most valuable.

This information was beginning to have a tangible impact on clinical practice and government policy. This was evidenced by an increase in the surgical resection rates in lung cancer and a concentration on the interface between primary and secondary care, following the RTD outputs.

The real power is being able to use population level data to analyse service performance. It is a level of evidence which so-called ‘evidence-based’ medicine has never been able to enjoy before.”

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Review of NCIN (2) – learning points

- engagement with wider clinical community and commissioners
- ‘scattergun approach to outputs’ (NCIN has been pulled in many different directions)
- follow-up of publications to understand impact
- academic stakeholders – some criticism that NCIN outputs lacked rigour and clear methodology

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Factors to consider for wider intelligence networks

- identifying key stakeholders and understanding their needs
- clear governance arrangements
- leadership and skill-mix of team
- balance between centralised and distributed model
- consistency across disease areas in presenting analyses in standard formats
- identifying ‘quick wins’
- flexibility and ability to innovate

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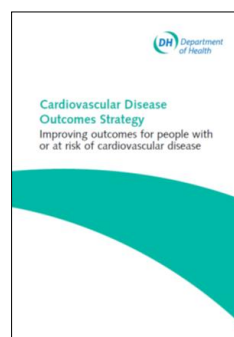
What does the evidence base tell us about networks?

- engagement of professional leaders
- key players act as connectors to transmit information, bridge disparate groups, liaise across parts of networks
- manage in a collaborative, non-hierarchical way
- harness existing incentives that members face outside the network
- adaptable – fostering innovation and creativity

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Cardiovascular Disease Outcomes Strategy (1) – March 2013

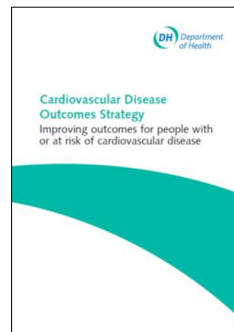
- Manage CVD as a single family of diseases
- Improve prevention and risk management
- Improving and enhancing case finding in primary care
- Better identification of very high risk families /individuals
- Better early management and secondary prevention in the community
- Improve acute care
- Improve care for patients living with CVD
- Improve intelligence, monitoring and research and support commissioning



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Cardiovascular Disease Outcomes Strategy (2) – March 2013

- the NHS Commissioning Board and PHE will look to **establish a cardiovascular intelligence network (CVIN)** bringing together epidemiologists, analysts, clinicians and patient representatives. The CVIN, working with the Health & Social Care Information Centre, will bring together existing CVD data and identify how to use it best



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NHS Outcomes Framework

Domain 1: Preventing people from dying prematurely

- Reducing premature mortality from the major causes of death (shared with Public Health Outcomes Framework 2013-16)
- Under 75 mortality rate from cardiovascular disease

Domain 2: Enhancing quality of life for people with long-term conditions

- Reducing time spent in hospital by people with long-term conditions
- Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s

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NHS Outcomes Framework

Domain 3: Helping people to recover from episodes of illness or following injury

- Improving recovery from stroke
- Proportion of stroke patients reporting an improvement in activity/lifestyle on the Modified Rankin Scale at 6 months

Domain 5: Treating and caring for people in a safe environment and protecting them from avoidable harm

- Reducing the incidence of avoidable harm
- Incident of hospital related venous thromboembolism (VTE)

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Public Health Outcomes Framework

Domain 2: Health Improvement

- number of QOF-recorded cases of diabetes per 100 patients registered with GP practices (17 years and over)
- the percentage of those offered diabetic eye screening who attend a digital screening event

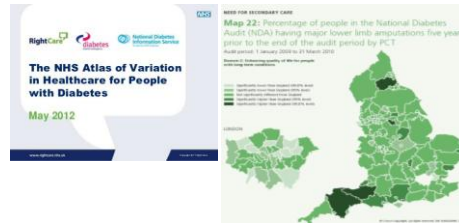
Domain 4: Healthcare public health and preventing premature mortality

- mortality from all cardiovascular diseases (including heart disease and stroke)
 - age standardised rate of mortality from all cardiovascular diseases (including heart disease and stroke) in persons less than 75 years of age per 100,000 population
 - age-standardised rate of mortality that is considered preventable from all cardiovascular diseases (including heart disease and stroke) in persons less than 75 years of age per 100,000 population
 - proportion of Certificate of Visual Impairment (CVI) registrations that are due to age related macular degeneration (AMD), glaucoma and diabetic retinopathy

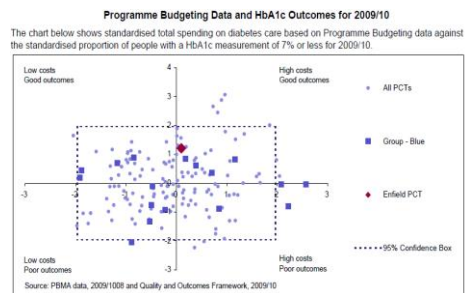
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Current Tools and Resources

- **Health Profiles:**
CVD, diabetes and renal
- **NHS Atlases of Variation:**
renal and diabetes



- **Tools:**
Diabetes Outcome Versus Expenditure (DOVE) tool
Variation in Inpatient Analysis (VIA) tool



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Diabetic eye screening



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Collaboration with academic and other sectors

- Diabetes prevalence modelling
- NHS Diabetic Eye Screening Programme (England) – Research Advisory Committee
 - three patient / user representatives
 - what intelligence do we have on diabetic eye disease?
 - how do we communicate and share research, audit and evaluation?
 - wider 'Four Nations' work on optimal screening intervals (driven by data and evidence)

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Child & Maternal Health: Strategic Context

'The Chief Medical Officer should consider how an intelligence network for children and young people's healthcare, which crosses all settings, can be established by 2013, to drive up standards and effective use of data, information and intelligence in decision making'

'This could be approached by building on the work of ChiMat, and linking it to other key registries and data collections, ensuring a strong focus on children and young people within the evidence and intelligence function of PHE and the NHS.'


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What we want to achieve

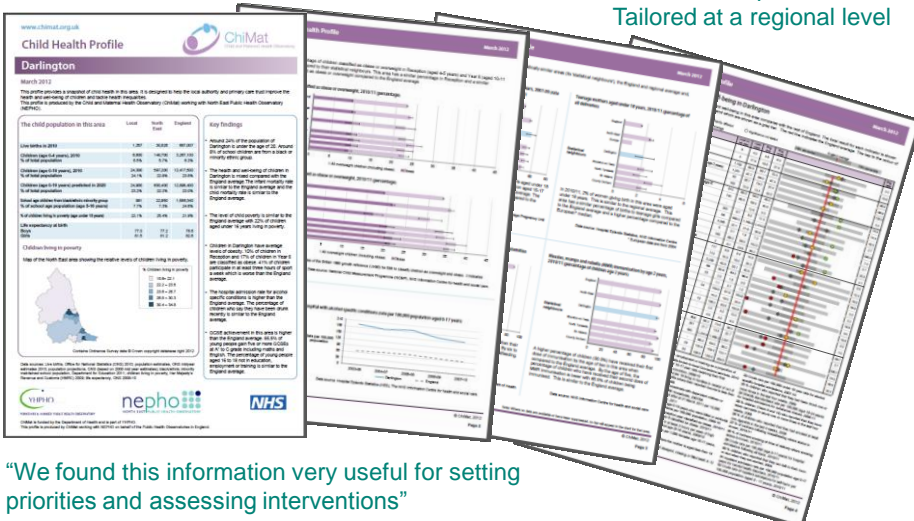
- Reduce infant and child mortality and morbidity ahead of international trends
- Improve performance against the health and wellbeing outcomes detailed in the NHS and Public Health Outcomes Frameworks
- Improve surveillance of the health and wellbeing outcomes recommended by the Children and Young People's Health Outcomes Forum
- Reduce variation in health and wellbeing outcomes and in the delivery standards of healthcare and public health services

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Local Authority Child Health Profiles

Standard template
Tailored at a regional level



“We found this information very useful for setting priorities and assessing interventions”

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Local Authority Child Health Profiles for England 2013

Description
 Child Health Profiles provide a snapshot of child health and well-being for each local authority in England using key health indicators, which enables comparison locally, regionally and nationally. Further information is available at <http://www.chmat.org.uk/profiles>

Local Authority Child Health Profiles for England 2013 Support

Screenshots

Regions

- East Midlands
- East of England
- London
- North East
- North West
- South East
- South West
- West Midlands
- Yorkshire and the Humber

ChiMat
 Child and Maternal Health Observatory

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Atlas of Variation – Child Health

Interactive website www.rightcare.nhs.uk/atlas

NHS Atlas of Variation: Child Health
 Admission rate for children for upper and/or lower gastro-intestinal endoscopy per population aged 0-17 years by PCT, 2007/08-2009/10

Downloadable high quality pdf

Immunisation **Breastfeeding** **Newborn hearing screening**

Perinatal mortality **A&E attendances** **Paediatric endoscopy** **Orchidopexy**

Retinopathy of Prematurity screening **Bronchiolitis**

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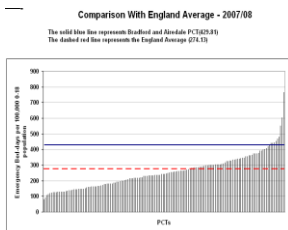


7,000+ users registered for knowledge services and tools

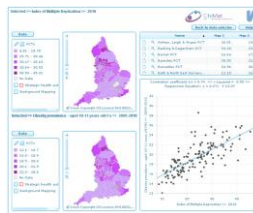
eBulletins

“Very current information, I am always in the know according to colleagues”

Disease Management



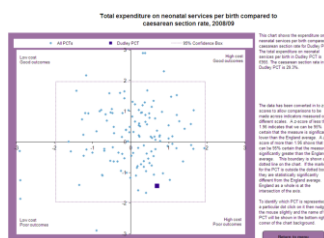
“Presenting complex data in a meaningful way that has the power to transform care”



Data atlas

“This data opened our eyes to the reality of our position”

Outcomes versus Expenditure



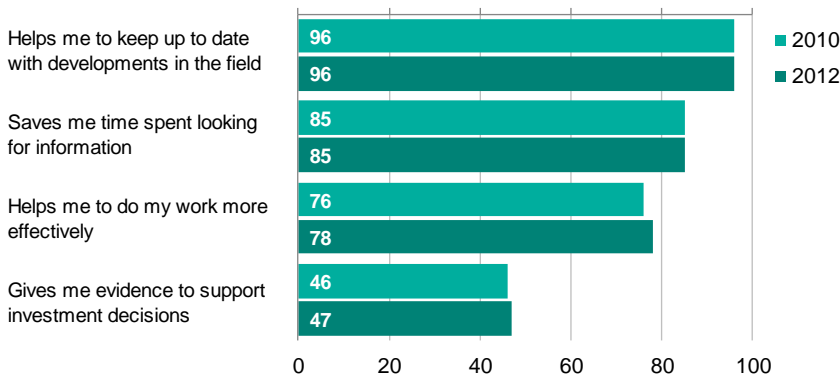
“A very useful tool... that helps identify and provide evidence for service redesign potential which will improve quality, efficiency and clinical outcomes for both commissioner and patient”

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Benefits to individuals (from surveys)

Using the ChiMat team/website tools and/or e-bulletin:



Survey respondents, 183 in 2010 and 485 in 2012

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PREview: ...why do we need to do this?

- To do preventive work we need to know which children are likely to experience poor outcomes in the future
- We need better ways of allocating preventive resources, supporting professional decision making and involving parents and communities in children's future well-being

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What we did

- analysis of Millennium Cohort Study with the University of York
- looked at outcomes aged 5 – covering health, learning & development and behaviour
- considered factors available during pregnancy and early infancy and the strength of their association with outcomes aged 5 years
- produced forward looking, evidence based population modelling for use in commissioning of preventative services
- produced resources for professionals to use with families and communities

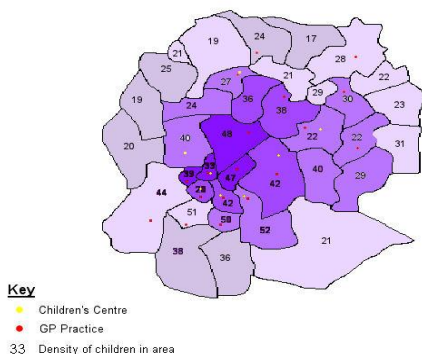
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PREview evidence

How PREview evidence can be used to show where resources should be targeted
NOW to address inequalities in outcomes in five years time.



Areas where children:

- are likely to have very good outcomes
- are likely to have good outcomes
- need additional preventive interventions to achieve good outcomes
- need extra additional preventive interventions to achieve good outcomes
- need intensive preventive interventions to achieve good outcomes

This map shows what the outcomes
will be for children in five years time

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Concluding messages

- harness clinical leadership
- know your customers and which ones really matter
- focus on embedding knowledge – intelligence tools are not an end in themselves
- build effective academic relationships that genuinely add expertise
- continue to share what works well in different intelligence networks
- positively encourage innovation

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