

Scottish Clinical Biochemistry Managed Diagnostic Network (SCBMDN) ANNUAL REPORT 2017/18

Lead Clinician: Dr. Ian Godber Network Scientific Manager: Dr. Janet Hogg Programme Manager: Dr. Catherine Colquhoun Programme Support Officer: Miss Philippa Cottam

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Executive Summary

Within the last year the network has become the main point of contact for the biochemistry community within Scotland for innovation, demand optimisation, standardisation, data collection and engagement between stakeholders. The network has been pro-active at engaging and collaborating with other professional bodies to develop a once for Scotland approach on appropriate testing and methodology. The network has responded to queries through collecting data and information through surveys and reporting on the data collected. The data has helped to inform and shape decisions at a government level.

One of the key developments and achievements for the SCBMDN is the development and presentation of the Biochemistry data, for example testing and staffing throughout Scotland. This will lead to the development, through the network, of a robust benchmarking system for laboratory medicine in Scotland.

There have been a number of queries and requests for information on the status of tests within Scotland, which have been addressed through the network. Within the last year, the network provided representation on a group which has been key in driving forward the implementation and standardisation of Faecal Immunochemical Testing (FIT) across Scotland.

In September 2017, the network hosted the annual education day event which attracted over double the number of attendees from previous years and increased the reach of the network. The feedback received from the event was very positive, which highlighted the interest in the two topics selected: Demand Optimisation and Point of Care Testing.

The website has been updated to reflect the changing requirements and needs of the biochemistry community. One of the key challenges during this year has been staff shortage. There has been the successful recruitment of a new network scientific manager and a programme support officer. The staff shortage has had an impact on communications such as the newsletter; however there has still been an increase in engagement of the network to the biochemistry community, evidenced by the increase in twitter activity and the number of attendees at the networks education day.

The lead clinician took the report produced on workforce, by one of the network's working groups, to the Diagnostic Steering Group (DSG). It provided the basis for a discussion on the staffing challenges facing biochemistry, which are also present across other disciplines. This has helped stimulate the creation of a working group to address issues and appointment of a secondee to be working on this area.

Introduction

SCBMDN is a diagnostic network which plays a key role in the strategic planning for diagnostic services, The network delivery plan aligns with the NHS Scotland plan for realistic medicine. A key focus of the network is the strategic planning of healthcare within Scotland to ensure the service provided is the most beneficial to stakeholders, by maximising the resources available and by assessing the most efficient and effective means of utilising the resources within the NHS in Scotland. Within the last year the network has developed to become the main point of contact for biochemistry within Scotland, which is important to ensure the maximum impact of the network.

The network recognises the current strategic focus on shared services and realistic medicine and has therefore worked closely to support the development of the distributed services model (DSM). In developing the business case, three subgroups have been operating, focused on DSM design, data and IT. A spread of network members has represented SCBMDN on each group who have been instrumental to discussion.

During the past year the network has set up a new work stream, a data working group. The group has been established and the data collection model has been agreed; this links with major strategic initiatives including the datamart being development for the DSM, national demand optimisation work and realistic medicine.

Network progress with the Atlas of Variation of laboratory tests from Primary Care has been presented to the Realistic Medicine Values Based Healthcare Group and was very favourably received by the Deputy Chief Medical Officer.

Aims/mission statement for SCBMDN

The SCBMDN aims to:

- promote consistency in service provision, education and training;
- identify emerging challenges and problems likely to impact on service provision;
- enable and promote the sharing of best practice;
- facilitate adoption of appropriate guidance (e.g. NICE, SIGN or RCPath);
- improve the evidence base for diagnostic tests;
- achieve harmonisation of approaches towards service provision;
- provide a forum for the introduction and evaluation of new concepts and technologies;
- promote the development of services, which are focussed on the delivery of good clinical outcomes, through the development of an 'effectiveness agenda';
- ensure activity is focussed on service improvement and the objectives of Triple Aim.

Report against Work plan

Two key areas where developments and improvements are particularly evident are demand optimisation and workforce. The re-convening of the national demand optimisation group and the interest demonstrated in the topic at the education day event highlight the importance of demand optimisation in the current climate. The recognition of the issues of workforce planning facing biochemistry and as a wider problem across all disciplines has been highlighted by SCBMDN, which has been key in pushing forward the need for changes to be made to address these growing concerns.

1. Demand Optimisation

The demand optimisation group has now been incorporated into the Innovation sub group due to overlap of work streams. The network now has representation on the newly re-convened National Demand Optimisation Group (NDOG), which is forming a national demand optimisation work plan. The NDOG will agree priorities for demand optimisation which the NMDN's will take forward. Demand Optimisation was one of the key topics of the network's education day event held in September 2017, which was met with great interest and stimulated good discussions.

2. Tumour Markers

This is a dynamic process which is due to be expedited within the next few weeks. The bookmark is finalised and due to be printed and distributed at the steering group meeting in April. The group aims to also get cancer networks to distribute the bookmark and for the guidelines to be included in the Scottish Cancer referral guidelines app.

An ambitious cross-Network audit of the Scottish Cancer Referral guidelines for ovarian cancer is now underway with SCIN. The audit will initially be piloted in Greater Glasgow and Clyde prior to being expanded into a national audit. The group has also collated information on the tumour marker target ranges in use across Scotland. The group will review the target ranges and propose harmonised ranges where applicable.

Additionally, the Network Scientific Manager has carried out work on CA-199, to assess the possibility of the test being rationalised across Scotland at one or two referral laboratories.

3. Workforce

The workforce report produced by the workforce sub group was taken to the DSG, which stimulated further discussion on the issue. It highlighted the same problems are faced by all disciplines e.g. training and finance. DSG have responded by establishing a cross disciplinary work force group to address the issues raised. The Scottish Government Healthcare Science Lead is has appointed a secondee, working one day a week, to further investigate the challenges being faced. The network is gathering information on workforce through the data group and will continue to link with NES.

4. HbA1c

A business case detailing the benefits of using HbA1c as a diagnostic test was produced and shared with all NHS Boards across Scotland. Throughout 2016-17 the Network has experienced challenges with rolling out the use of HbA1c as a diagnostic test across Scotland. The lack of a governance structure by which to implement known best practice was highlighted as a key challenge to NMDNs. However, the Network supported the use of HbA1c as a diagnostic test and are making best use of the new DSG structure as a mechanism to improve the network's ability to influence change. A subsequent audit commissioned by the Association for Clinical Biochemistry (ACB) Scottish audit group and tabled to the SCBMDN highlighted the levels of standardisation for this test across Scotland.

5. Innovation

The innovation dashboard is now present on the SCBMDN website to encourage the sharing and incorporation of successful innovative practice between different NHS Boards in Scotland. However the need for to develop and improve the design of the dashboard was identified at the network's annual review and this has been identified as an aim for 2018-19. There has been discussion regarding the use of Number Telling to present data within the network. The reach of the group has been extended to now include Ireland. There is on-going work on the network's innovation dashboard to incorporate Intelligent Liver Function Testing (iLFT). The innovation sub

group has now incorporated the demand optimisation group, so is additionally taking the demand optimisation work forward.

6. Shared Services

The network has worked closely with the expanded shared services to fit with the distributed services model. SCBMDN has reviewed the blueprint for the DSM, provided feedback and is incorporating recommendations into their work plan to continue a beneficial working relationship to realise the ambitions of the shared services programme.

7. B Type Natriuretic Peptide (BNP)

A wrap up summary survey of the BNP project has been carried out and was concluded with a letter to the NHS Board Chief Executives. This piece of work is now in the hands of the cardiologists. The network has successfully collaborated with cardiologists and cardiac physiologists to produce the paper on BNP and the network has carried out surveys to map BNP practise throughout Scotland.

8. Faecal Immune Testing

The network has been pivotal in driving forward discussions to produce a once for Scotland, national approach on FIT testing in the pathway for assessment of symptomatic patients with low risk of cancer in primary care. FIT was taken forward to the DSG, and a summary paper was then produced by the DSG and sent to the chief executives. The network's role in this process has been concluded by a report being produced by Dr. Ian Godber on behalf of SCBMDN to develop the outcomes.

9. Communication and Engagement Strategy

Due to staff shortages, the newsletters haven't been circulated as frequently as planned, however a plan to enhance communication throughout the network has been developed and will be implemented in 2018. The website has been developed and has demonstrated an increase in the reach of the network (appendix 3). The increase in engagement with the network was also demonstrated by the increase in reach of attendees at the education day event.

10. SCBMDN website

The SCBMDN website has been revamped during the past year. Using feedback from members, the website was improved in terms of its look, functionality and content. It now has up to date information on the network research, signposting to all relevant websites and hosts newsletters as well as meeting papers.

11. Network Scientific Manager Recruitment

The successful recruitment of a Network Scientific Manager has been carried out. A smooth transition between staff was achieved and the network has continued to produce successful reports by the new Network Scientific Manager.

Five Year work plan for the Network

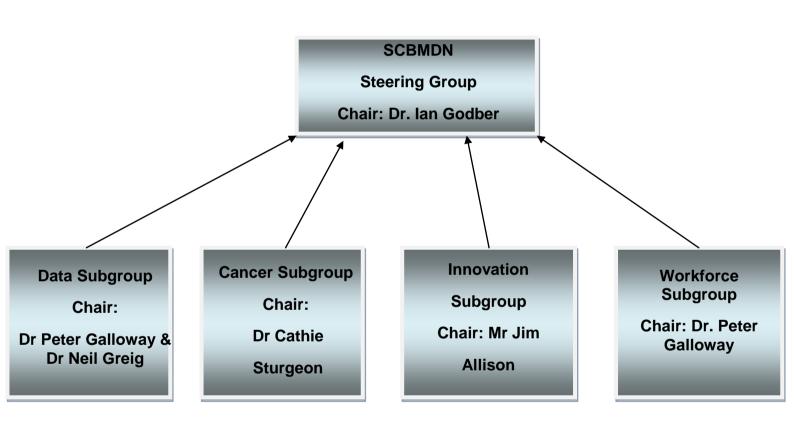
The SCBMDN five year work plan for the Network with key focus areas continues to be a fluid document which is expanded and developed as required. It provides an important clear direction for the network with more detailed aims produced annually. It has been identified as good practice and has been adopted by other networks.

Plans for the year ahead

- Ensure regular communication goes out for example newsletters and Twitter
- Successful completion of the network review
- Continue to develop the data group and data collected
- Get the bookmark printed and get the cancer reference intervals on the current Scottish cancer referral guidelines app
- Complete the CA125 audit
- Put re-vamped innovation dashboard on the website and publicise the resource to increase engagement, for a greater number of examples to be submitted
- Continue to develop demand optimisation through work with the newly convened national demand optimisation group
- To host another successful education day event, with a further increase in number of attendees and spread of attendees from throughout the biochemistry community
- Continue to develop the five year work plan
- Continue to be responsive to emerging challenges
- To support the haematology sub group to submit their own network application
- Continue to work with IMS to produce a dashboard on primary care test requesting

Network governance

Scottish Government's Core Principles for Networks (as laid out in CEL 29 letter) highlight the importance of the managed diagnostic networks developing and delivering the healthcare strategy through re-designing the service, promoting integration and developing good practice to enable improvement to the services provided. SCBMDN does this through the oversight of its Steering Group, which is accountable for delivery of the work plan, and through the establishment of appropriate subgroups and short life working groups. The governance structure as at 31st March 2018 is as follows:-



Detailed Description of Progress over Reporting Period 2017-18

Objective Number	SMART Objective	Linked Dimension s of Quality	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as of 01/03/2018	Anticipated Outcome	RAGB Status
2017-01	Cancer Guidelines An agreed reference range for tumour marker requesting for the non- specialist will be written and incorporated into the Scottish Cancer Referral Guidelines and this will be distributed to primary care. The information will be disseminated through the Scottish cancer referral guidelines app and a bookmark containing the key reference intervals.	1,2,3,4, 5	To be completed April 2018	Dr Cathie Sturgeon and Dr Janet Hogg	 This is a dynamic process which is due to be expedited within the next few weeks. The bookmark is finalised and due to be printed and distributed at the steering group meeting in April. The aim is to get cancer networks to also distribute the bookmark and for the guidelines to be included in the Scottish Cancer referral guidelines app. The network scientific manager has carried out work on CA-19, to assess the possibility of the test being brought back to Scotland. A report on this has also been produced. 	The production and dissemination of clear national reference guidelines containing reference ranges for tumour markers. The reference intervals will provide standardisation of diagnosis of disease and equip non- specialists to improve cancer diagnosis and treatment for patients. The guidelines will be in the form of a bookmark and inclusion in a current app.	A
2017-02	CA125 A joint audit between SCBMDN and SCIN data with regards to diagnostic investigations for the recognition of ovarian cancer in primary health care will be designed. The audit will be trialled in one health board, which has been agreed and this is GG&C.	1, 2, 3, 4, 5	Aim to be completed by Dec 2018	Mrs Claire Lawrie and Dr Catherine Colquhoun	The PBPP has been submitted and accepted. The PIA documentation has been submitted and final changes are currently being made. The final documentation is due to be finalised by the end of March 2018, then the data collection will begin and the audit can commence. There has been a change in the Caldicott guardian which has now been processed in the application. Additionally contact has been made with Socrates, so that is in place and the plan to anonymise the data agreed. A data plan has been developed and agreed and will be produced as a written plan by the end of April 2018.	A complete audit of CA125 is to be completed, to obtain a clear picture of the variation of CA125 throughout Scotland. The audit will enable reference guidelines to be produced, which will enable the standardisation of diagnosis of ovarian cancer to occur ensuring equity across Scotland.	G

2017-03	B-type Natriuretic Peptide (BNP) The mapping of BNP practice has taken place and a position paper on BNP, written by the SCBMDN has been included as part of the National Delivery Plan report for the Scottish Government	1, 2, 3, 4, 5	To begin June 2017 to be completed August 2017.	Dr. Ian Godber and Dr Janet Hogg	A wrap up summary survey of the BNP project has been carried out, and concluded with a letter to the chief executives. This piece of work is now in the hands of the cardiologists.	The work being carried out by the network on this project has been concluded with a clear picture of how effectively BNP has been implemented and the variations between regions.	В
2017-04	Innovation Additional members with varying levels of expertise and from various geographical areas are involved in the SCBMDN and there is more frequent communication around the work of the SCBMDN.	1, 2, 3, 4, 5, 6	May 2017 to April 2018	Mr Jim Allison, Mr Michael Cairns, Dr. Ian Godber, Mrs Claire Lawrie and Dr Catherine Colquhoun	There has been discussion regarding the use of Number Telling to present data within the network. The reach of the group has now been extended to include Ireland. There is on-going work on the dashboards incorporating iLFT. The innovation sub group has now incorporated the demand optimisation group, so is additionally taking the demand optimisation work forward.	Further development of the dashboard will promote and encourage examples of innovative practice to be replicated and incorporated into different NHS Boards. The outcomes of the dashboard are to be linked with other areas scientific disciplines.	G
2017-05	Workforce Filling existing vacancies and focusing on recruitment by considering upcoming vacancies in the next 5-10 years across Scottish Biochemistry Services.	2, 3, 4, 6	On-going, to be completed March 2018	Peter Galloway	The report produced was taken to the DSG, which stimulated further discussion on the issue, highlighting it was the same problems faced by all disciplines e.g.; training, finance. David Stirling is currently pulling together a cross disciplinary work force group; to address the issues raised which will be taken forward by NES. The network is gathering information on workforce through the data group. Karen Stewart is now looking at a secondee working with her a day a week to further investigate the challenges being faced.	The report has highlighted the current challenges and has stimulated action to address the challenges being faced. The network will gather data to support the work being taken forward by NES and the cross disciplinary team led by David Stirling.	В

2017-06	Demand Optimisation To reduce under and over testing in biochemistry across Scotland. To develop 5 key recommendations of examples of key areas where demand optimisation could be implemented and to communicate this through the network and the education day.	1, 2, 3, 4, 5, 6	Began May 2017 to September 2017	John O'Donnell, Janet Horner, Catherine Colquhoun and Ian Godber.	The demand optimisation group has now been incorporated into the Innovation sub group. The network now has representation on the newly reconvened National Demand Optimisation Group, which is forming a national demand optimisation work plan. Demand Optimisation was one of the key topics of the networks education day event held in September 2017. The topic was well received.	A shared understanding of best practice in demand optimisation. This group is now part of the innovation group.	В
2017-07	Communication Increase awareness of the network, and dissemination of information. Extend the reach of the network.	1, 3	April 2017 to March 2018	Dr. Ian Godber, Ms Janet Hogg, Dr Niove Jordanides and Dr Catherine Colquhoun.	The network had a very successful education day event, with the next booked for Sept 2018. The number of attendees doubled from the previous year, increasing the promotion of the network. A re-vamped newsletter is due to be sent out within the next month, as due to staff shortages this could not be finalised earlier. A plan of distribution dates for newsletters has been produced to ensure timely communication in the coming year. There has been an increase in Twitter communication across all diagnostic networks, which demonstrates an increase in the reach of the network.	Increased engagement with the network and increased reach and range of professionals and ages of members. The increased awareness of the network will hopefully lead to engagement with a wider range of members enabling the development of new ideas within the network whilst communicating the experience of the current members.	В
2017-08	Emerging Challenges Diagnostic services will be responsive to emerging challenges and will be able to address them quickly,	1,2,3,4,5,6	On-going	Catherine Colquhoun and Ian Godber	The network will have clear communication lines and will be efficient at implementing plans for any emerging challenges. There has been evidence of good communication where the network has peer reviewed topics such as liver fibrosis work. The network has engaged on a range of topics such as FIT. The network links to a range of professionals and is responsive to queries for example surveys asked of the network.	Network is prepared to be responsive and able to adapt to any emerging challenges.	G
2017-09	Recruitment of Network Scientific Manager, expected to finish Jan 2018.	1,3	May 2017 until successful candidate recruited.	Catherine Colquhoun, Liz Blackman and Ian Godber	A new network scientific manager has been recruited and is in post.	New scientific manager recruited.	В

2017-10	Education Day. Aim to publicise network and increase understanding of innovative practice and point of care testing.	1,2,3,4,5,6	Began May 2016, completed Sept 2017	Catherine Colquhoun, Alison Walker and publicising from all network members.	The education day was a great success, with doubling of the attendance. The feedback received from the event was very positive, highlighting that the selection of topics was interesting to many. The event increased the profile of the network and the next event has been planned for Sept 2018, where Dermot Sutherland will be talking about draft guidelines that are fed into the modernising outpatient programme.	Increased attendance in the education day and increased spread of attendees. Feedback will be requested from the attendees and the spread of attendees will indicate the reach of the network. It is also hoped that the network will increase the understanding and implementation of demand optimisation and POCT as the two key focus topics of the day.	В
2017-11	5 Year Work Plan. The 5 year plan has been developed however this is not a static document. It will be developed and updated as the year progresses.	1,2,3,4,5,6	July 2017- March 2018	Catherine Colquhoun, Ian Godber	Last updated April 2018, further work in line with review	The 5 year work plan will provide a clear, direct and targeted approach of the network, which is presented to all stakeholders. A structured plan is in progress. All stakeholders will be clear of the priorities and direction of the network and working efficiently towards common goals.	В
2017-12	FIT Testing	1,2,3,4,5,6	May 2017- March 2018	FIT SLWG	A report has been produced by Dr. Ian Godber on behalf of SCBMDN to develop the outcomes. FIT was taken forward to the DSG. A summary paper was then produced by the DSG and sent to the chief executives.	The network has been responsive and pro-active regarding FIT.	В

2017-13	Launch a short-life working group for Haematology to deliver improvements in haematology services; scope the future development of services and ascertain the future work plan and support needs.	1,2,3,4,5,6	May 2017 to November 2018	Catherine Colquhoun, Alistair Hart	Completion of some haematinics guidance Submission of network application	The aim is for the Haematology workforce to enjoy better engagement with national initiatives and for a strategic vision for haematology services in Scotland to be developed and the implications and required resources understood.	G
2017-14	To support improved data collection, analysis and benchmarking in NHS Scotland through supporting development of the Keele University Benchmarking System and comparing this to a pilot study to produce reports for participating NHS Boards.	1,2,3,4,5,6	June 2017 to September 2018	Catherine Colquhoun, Claire Lawrie	The Keele questionnaire has been developed in partnership with the Steering Group, agreed and disseminated. The NNMS Information Management Service is developing a SCBMDN pilot to produce reports similar to pathology reporting. For comparison, see appendix 2. In order to improve and develop data collection there will be increased engagement with the IMS team. The implementation of a data sub group will support the improvement of the data collection. Keele and the IMS team are presenting options for data collection and the options for going forward; This is being done in collaboration with the shared services project. SCBMDN is leading on the atlas of variation project, which has been well received to date. SCBMDN is now the trail blazer, with the current data set from primary care, but the option of inclusion of secondary care data being explored.	NHS Scotland will have a clearer picture of biochemistry activity and an agreed way forward to develop the data set further and use the information to target variation and improve quality.	G

RAG status key

RAG status	Description
RED (R)	The network is unlikely to achieve the objective/standard within the agreed timescale
AMBER (A)	There is a risk that the network will not achieve the objective/standard within the agreed timescale, however progress has been made
GREEN (G)	The network is on track to achieve the objective/standard within the agreed timescale
BLUE (B)	The network has been successful in achieving the network objective/standard to plan

The Institute of Medicine's six dimensions of quality are central to NHS Scotland's approach to systems-based healthcare quality improvement; therefore objectives should be linked to these dimensions:

- 1. **Person-centred**: providing care that is responsive to individual personal preferences, needs and values and assuring that patient values guide all clinical decisions;
- 2. Safe: avoiding injuries to patients from healthcare that is intended to help them;
- 3. Effective: providing services based on scientific knowledge;
- 4. Efficient: avoiding waste, including waste of equipment, supplies, ideas, and energy;
- 5. Equitable: providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location or socio-economic status; and
- 6. **Timely**: reducing waits and sometimes harmful delays for both those who receive care and those who give care.

Annual Work plan 2018-19

Objective Number	SMART Objective	Linked Dimension s of Quality	Planned start/ end dates	Detailed Plan Available / Owner	Description of progress towards meeting objective as of 01/03/2018	Anticipated Outcome
2018-01	Cancer Guidelines To have the bookmark printed and to distribute the hard and electronic copies of the bookmark. The information will additionally be incorporated into and disseminated through the Scottish cancer referral guidelines app containing the key reference intervals.	1,2,3,4, 5	To be completed by June 2018	Dr Cathie Sturgeon, Dr Janet Hogg and Dr Niove Jordanides	The bookmark is finalised and due to be printed and distributed at the steering group meeting in April.	The production and dissemination of clear national reference guidelines containing reference ranges for tumour markers. The reference intervals will provide standardisation of diagnosis of disease and equip non- specialists to improve cancer diagnosis and treatment for patients. The guidelines will be in the form of a bookmark and inclusion in a current app.
2018-02	CA125 Complete the joint audit between SCBMDN and SCIN data with regards to diagnostic investigations for the recognition of ovarian cancer in primary health care. The audit will be trialled in one health board, it has been agreed this is GG&C.	1, 2, 3, 4, 5, 6	Aim to be completed by Dec 2018	Mrs Claire Lawrie, Dr Niove Jordanides and Dr Catherine Colquhoun	The PBPP has been submitted and accepted. The PIA documentation has been submitted and accepted. The data collection will begin and the audit can commence. Additionally contact has been made with Socrates, so that is in place and the plan to anonymise the data agreed. A data plan has been developed and agreed.	A complete audit of CA125 is to be completed, to obtain a clear picture of the variation of CA125 throughout Scotland. The audit will enable reference guidelines to be produced, which will enable the standardisation of diagnosis of ovarian cancer to occur ensuring equity across Scotland.

2018-03	Innovation To re-design the innovation dashboard and have this on the website. The dashboard will be actively promoted and aim to increase engagement and spread of innovative practice throughout NHS Boards in Scotland.	2, 3, 4, 6	Continue development to April 2019	Mr Jim Allison, Mr Michael Cairns, Dr. Ian Godber, Mrs Claire Lawrie and Dr Catherine Colquhoun	The re-vamped innovation dashboard will aim to increase engagement with the dashboard. Increasing the number of examples of innovative practice submitted, additionally increasing the spread of successful innovative practice within different NHS boards throughout Scotland using examples from the dashboard. The promotion of the sharing of good practice and successful implementation of different ideas from one board to another.	Further development of the dashboard will promote and encourage examples of innovative practice to be replicated and incorporated into different NHS Boards. The outcomes of the dashboard are to be linked with other scientific disciplines.
2018-04	Workforce The network is gathering information on workforce through the data group. Karen Stewart is now looking at a secondee working with her a day a week to further investigate the challenges being faced.	1, 2, 3, 6	On-going, to be completed March 2019	Dr Peter Galloway, Dr Ian Godber	The network will continue to engage with the cross disciplinary group regarding the challenges identified by the workforce report produced by the networks sub group.	The network will gather data to support the work being taken forward by NES and the cross disciplinary team led by David Stirling.
2018-05	Demand Optimisation The network will continue to develop demand optimisation work through the newly convened national demand optimisation group.	1, 2, 3, 4, 5, 6	Continue to April 2019	John O'Donnell, Janet Horner, Catherine Colquhoun and Ian Godber.	The demand optimisation group has now been incorporated into the Innovation sub group. The network now has representation on the newly reconvened National Demand Optimisation Group, which is forming a national demand optimisation work plan.	A shared understanding of best practice in demand optimisation. This group is now part of the innovation group.

2018-06	Communication The network will ensure regular communication is sent out in the form of newsletters and Twitter. The network will continue to increase its profile, and dissemination of information. Extend the reach of the network to attract more stakeholders to engage.	1, 3	April 2018 to April 2019	Dr. Ian Godber, Ms Janet Hogg, Dr Niove Jordanides and Dr Catherine Colquhoun.	A re-vamped newsletter is due to be sent out within the next month, as due to staff shortages this could not be finalised earlier. A plan of distribution dates for newsletters has been produced to ensure timely communication in the coming year.	Increased engagement with the network and increased reach and range of professionals and ages of members. The increased awareness of the network will hopefully lead to engagement with a wider range of members enabling the development of new ideas within the network whilst communicating the experience of the current members.
2018-07	Emerging Challenges Diagnostic services will continue to be responsive to emerging challenges and will be able to address them quickly.	1,2,3,4,5,6	On-going	Janet Hogg, Catherine Colquhoun and Ian Godber	The network will have clear communication lines and be efficient at implementing plans for any emerging challenges. The network links to a range of professionals and is responsive to queries for example surveys asked of the network.	Network is prepared to be responsive and able to adapt to any emerging challenges.
2018-08	Education Day. The network aims to host another successful education day event, with a further increase in the number and spread of attendees throughout the biochemistry community.	1,3,5	Completed Sept 2018	All network members	The education day has been planned for Sept 2018, where Dermot Sutherland will be talking about draft guidelines that are fed into the modernising outpatient programme.	Increased attendance in the education day and increased spread of attendees. Feedback will be requested from the attendees and the spread of attendees will indicate the reach of the network.

2018-09	5 Year Work Plan. The 5 year plan has been developed however this is not a static document. It will continue to be developed and updated as the year progresses.	1,2,3,4,5,6	July 2017- March 2018	Catherine Colquhoun, Ian Godber	The plan is written, but will need to be updated and developed as required throughout the year.	The 5 year work plan will provide a clear, direct and targeted approach of the network, which is presented to all stakeholders. A structured plan is in progress. All stakeholders will be clear of the priorities and direction of the network and working efficiently towards common goals.
2018-10	SCBMDN will continue to support the haematology sub group to submit their own network application. The network will support haematology to deliver improvements to haematology services and develop their work plan as part of their network application.	1,2,3,4,5,6	June 2018	Liz Blackman, Ian Godber and Alistair Hart	The haematology short life working group has identified some key objectives, and has been developing the application for an independent network. The time line for completion and submission of network application is currently being developed.	The aim is that the Haematology workforce, should enjoy better engagement with national initiatives and that a strategic vision for haematology services in Scotland is developed and the implications and required resources understood.
2018-11	Data collection and presentation The network is working closely with the IMS team developing the data collection and presentation of the data collected.	1,2,3,4,5,6	Until March 2019	Catherine Colquhoun, Claire Lawrie, Ian Godber	The data sub group have identified a benchmarking questionnaire that will be issued to all Health Boards in summer 2018 that will be reported in December 2018.	NHS Scotland will have a clearer picture of biochemistry activity and an agreed way forward to develop the data set further and use the information to target variation and improve quality.

2018-12	Completion of the network review	1, 3, 4, 5	September 2018	Expert review group, Ian Godber, Janet Hogg, Philippa Cottam and Catherine Colquhoun	The review of the network will help identify any potential areas where the network can continue to develop and improve the reach and effectiveness of the network.	The review of the network will aim to be successful and concluded within the next year.
2018-13	Atlas of Variation The network is leading on the development of an atlas of variation showing variation in test requesting. Deliver workstreams in a lab to reduce unwarranted variation in the following tests: FSH; Vitamin D; Thyroid; U+E			IMS, Data Group	A prototype Atlas of Variation has been produced and presented to a number of groups including the realistic medicine team. The data sub group have standardised the list of tests to be included in it and will be sending all 15 boards a template for completion. The intention is to have all health boards data within the atlas of variation by December 2018 and to split the information in it by primary care and secondary care requesting and to GP and GP cluster level on a monthly basis. The realistic medicine team have provided a small amount of funding to enable us to trial access with GP's in order to gain feedback/enhancement requests.	

Appendix 1: Network membership

Lead Clinician	lan Godber
Network Scientific Manager	Janet Hogg
Senior Programme Manager	Liz Blackman
Programme Manager	Catherine Colquhoun (maternity leave cover is Niove Jordanides)
Programme Support Officer	Philippa Cottam
NHS Ayrshire and Arran	Suzanne Mackenzie, Gordon Taylor
NHS Borders	John O'Donnell
NHS Dumfries and Galloway	Kim Heathcote, Michael Burns
NHS Fife	Neil Greig, Ken Campbell
NHS Forth Valley	Mark Redpath, Gillian Lowe
NHS Grampian	Jim Allison, Bernie Croal, Ian Rothnie, Ann Milne
NHS Greater Glasgow and Clyde	Christine Brownlie, Frank Finlay, Peter Galloway, Janet Horner, Maurizio Panerelli, Colleen Ross,
NHS Highland	Marie Van Drimmelen, David Smith
NHS Lanarkshire	Ian Godber, Louise Brown
NHS Lothian	Rebecca Pattenden, Sara Jenks
NHS Orkney	Deborah Stevenson
NHS Shetland	Robert Wardrop
NHS Tayside	Chris Hind, Bill Bartlett
NHS Western Isles	Robert Wardrop
Royal College of Pathologists	Bernie Croal
Association of Clinical Biochemists	Sarah Cleary
Shared Services	Heather Bryceland
ACB Audit Group	James Logie
Institute of Biomedical Scientists	Elaine Kennedy
SCBMDN Cancer Working Group Chair	Cathie Sturgeon
SCBMDN Data Working Group Chair	Peter Galloway

SCBMDN Innovation/Demand Optimisation Work group Chair	James Allison
SCBMDN Workforce Working Group Chair	Peter Galloway
NSS Information Management services	Claire Lawrie

Appendix 2: Finance

SCB MDN Financial Information

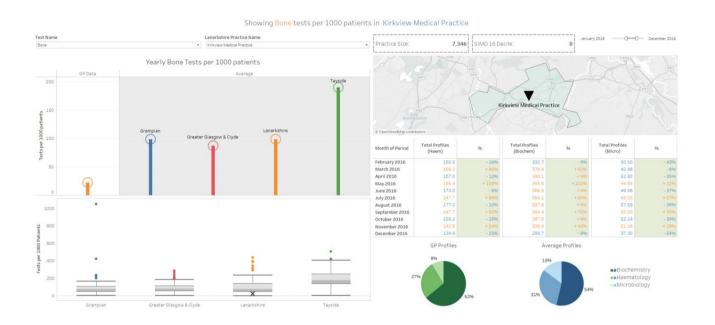
Job description	Account description	2017
SCB MDN	COURSE FEES	£100.00
	EXHIBITIONS AND CONFERENCES	£1,813.24
	HIRE OF ROOMS FOR MEETINGS	£1,257.60
	INTERNL CATERING RECHRG NPAY	£1,271.17
	OTHER PRINTING STATIONERY	£20.40
	OTHER PROVISIONS	£24.70
	PRINTING (OUTSIDE PRINTERS)	£137.37
	PUBLIC TRANSPORT	£204.10
	TRAVEL SUBSISTENCE	£109.40
Grand Total		£4,937.98

£1,271 26%	£1,258 25%	£1,813 37%	
Туре			
TRAVEL SUBSISTENCE	INTERNL C	ATERING RECHRG NPAY	
PUBLIC TRANSPORT	PUBLIC TRANSPORT HIRE OF ROOMS FOR MEETINGS		
PRINTING (OUTSIDE PRINTERS)			
OTHER PROVISIONS	COURSE FEES		
OTHER PRINTING STATIONERY			

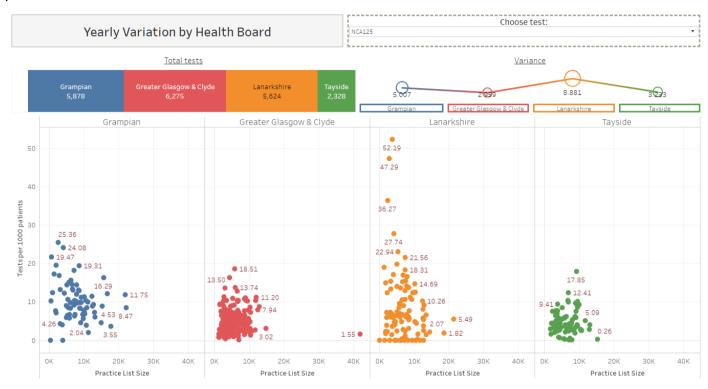
Appendix 3: Screen shots from Data

The following screenshots from the prototype Atlas of Variation demonstrate the levels of variation in test requesting.

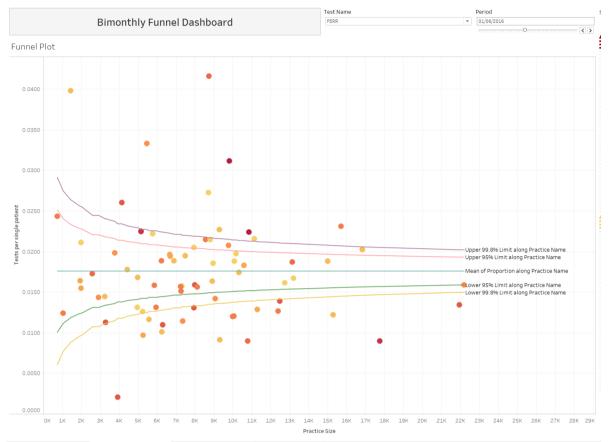
The screenshot below looks at one particular test for one GP practice within NHS Lanarkshire and compares the requesting pattern from that practice against the average requesting levels for 4 Health Boards. As the image below illustrates, this medical practices requesting levels are below the averages.



The following screenshot from the atlas of variation shows variation in test requesting across health boards. This image looks at the requesting NCA125 and the scatter plot depicts the requesting level of each GP practice within these Health Board areas.



The following visualisation looks at variation across deprivation, the coloured dots identify the ranking of deprivation for the GP practices using SIMD data and then shows the variation in test requesting against that information. This can highlight what variation may exist in test requesting.



[🗄] GP Benchmarking Dashboard 🛛 🗄 Bimonthly Funnel Dashboard 🕮 Yearly Variation by Health Bo... 🕮 Lanarkshire Dashboard

Appendix 4: Statistics of SCBMDN website

Top visited pages and number of unique visitors from 01/04/17- 31/03/18

Page views	1,896
Avg daily page views	5
Unique Visitors	294

Top Web Pages slim_p1_08	
Results 1 - 20 of 77	> >>
/scbmdn/	26,53%
About SCBMDN	7,38%
News	6,28%
Pathology Harmony 2011	3,22%
Steering Group	3,22%
Annual Report	3,11%
Shared Services	3,01%