National Competency Framework for Data Professionals in Health and Care

Alpha Pilot Programme Evaluation Report

Contents

Executive Summary

The Association of Professional Healthcare Analysts (AphA) was commissioned by NHSX to develop and test the Alpha phase of the development of a National Competency Framework for Data in Health and Care.

The project, with contribution from Davies Furlong Consulting, undertook the following phases:

- Recruitment of Contributors
- Rediscovery
- Initial Development
- Testing
- Remediation and Secondary Development
- Secondary Testing[1]
- Remediation and Reporting

It became clear, early on in the testing phase, that the data environment was desperate to have a competency framework for health and care that applied equally amongst all domains within it. It became equally apparent that, upon the second phase of testing, the community was in almost unanimous agreement that this framework was the one to set the standard throughout health and care.

Phase I

- 91% of respondents found it useful or really useful
- 18% of people had difficulty in using it
- 89% of people thought the framework was as good or better than any other framework they had used before
- 79% of people would support its roll out nationally
- 38 people responded to the questionnaire and 16 people were interviewed

Phase II

- 100% of respondents found it useful or really useful
- 4% of people had difficulty in using it
- 96% of people thought the framework was as good or better than any other framework they had used before
- 90% of people would support its roll out nationally (97% after modifications)
- 78 people responded to the questionnaire and 7 people were interviewed

The ratification of this report should therefore be considered as being full support of the implementation and further development of the National Competency Framework in line with the recommendations highlighted.

[1] The second phase of testing was extended to include a specific team from within a central organisation to contribute specialist feedback. As this team would distort the accurate reflection of the health and care community, their feedback is not included in the statistics but their specialist guidance has been used to guide the recommendations.

Urgent Recommendations

Priority	Recommendation	Best Lead Orgs	Approx. Duration
1	Develop leadership, project management and soft skills whilst further developing data science and data engineering as an evolving space in conjunction with allied sectors (leadership and PM) – to include professional comms draftsperson input on the final design prior to handover to curator	Davies Furlong Consulting (DFC) with AphA consultancy	3 months
2	Develop the strategic requirements for: National rollout of framework National professional development application (online) Onboarding of professional standards nationally Development of "what good looks like" as part of a comprehensive management toolkit	DFC/NHSE DFC/ SCWCSU AphA/NHSE DFC/NHSE	3 months
3	Work with NHS South, Central, and West CSU to develop an application for data professionals to manage their own and their teams' development online with signposting and guidance. The points based system in the booklet appendices appears the most relevant mechanism for development at this stage but this would require further research.	DFC/ SCWCSU/ NHSE	9 months
4	Commence the national rollout of the competency framework model	DFC / AphA / NHSE	18 months
5	Appoint AphA as the ongoing funded custodian of the competency framework to ensure all points remain "live" and pertinent	AphA	3 months
6	Development of "what good looks like" as part of a comprehensive management toolkit to include routines for excellence and links to development application	DFC/NHSE	24 months

Further recommendations are available in the appendices to fully capitalise on the opportunity now presented within the health and care data community. These recommendations have been sourced from feedback, from stakeholders as can be seen from the Suggestions and Responses document in the appendices. The development of these recommendations will help embed professional standards that will not only establish health and care data professionals nationally but add to the NHS's global recognition as a beacon for best practice.

Note that the approximate duration for task is an assumption only, actual timescale will need to be worked through in detail based on available funding etc.

Project Brief

Analytical Competency Framework – Feasibility Exercise (Alpha stage testing)

Following on from the completion of the Analytical Competency Framework Discovery work, the NHSX and NHSE/I have indicated the requirement for further work, which is called the 'AlphA' stage.

The commission is outlined below, in stages:

1. **Alpha framework development:**
    a. Produce draft set of competency frameworks, based around the roles in the Government Analytical Function (aka the Alpha framework)
    b. To be developed with appropriate input from representatives in NHSE/I analytical community and local analytical teams
        i. Form a small working party with key representatives, to develop and agree draft competency frameworks for testing
        ii. Build on work already done in pre-alpha in NHSE/I and elsewhere e.g. NWISDN and Mids and Lancs CSU, Laura Bellingham and CSU leads, NHSX leads, PHE
        iii. ensure frameworks for all roles developed are clearly mapped to a role in the DDaT Data family
        iv. See annex 1 for an initial Analytical Function - DDaT mapping attempted by Sarah Culkin and shared with HEE at their request

2. **Framework testing:**
    a. Identify a number (6 minimum - 10 maximum) of analytical teams willing to review the pilot competency framework (see annex b for details of team that have previously expressed an interest in being involved with testing)
    b. These teams will need to be from a diverse range of organisations for example:
        i. Acute, Community and Mental Health Provider Trusts
        ii. CSU, NHSE/I and PHE Teams
        iii. Big city vs more rural
        iv. Engaged supported analytical team vs less well engaged and supported
    c. Produce a testing protocol, i.e. a set of questions and an evaluation plan
        i. To be tested and agreed with the small working party

3. **Reporting of results and recommendations:**
    a. Produce a report containing:
        i. Details of the testing protocol and results obtained
        ii. Based on the results from testing, review the initial alpha stage framework and amend as necessary to produce a beta version to take into a larger pilot
        iii. Any other recommendations for the beta stage and beyond
        iv. Share findings into ONS review

Project Chronology

Recruitment of Contributors and Engagement

In order for the project to be as successful as possible it was essential that not only were as many organisations engaged in the development from a buy-in perspective, but also that the numbers and types of organisation reflected the distribution of data professionals through Health and Care. The first two weeks of the project were therefore spent recruiting a steering group from commissioners of the project, a working group from a range of health and care organisations along with an additional testing cohort. These groups were made up as follows:

Steering Group

Rony Arafin – AphA

Andrew Barraclough – AphA

Jane Johnston – AphA

Sarah Culkin – NHSX

Sarah Blundell – NHSX

Huw Davies – Davies Furlong Consulting

Elizabeth Stuart-Bennett – Davies Furlong Consulting

Donna Hanson – AphA

Working Group[2]

Sarah Blundell – NHSX

Huw Davies – Davies Furlong Consulting

Elizabeth Stuart-Bennett – Davies Furlong Consulting

Donna Hanson – Davies Furlong Consulting / AphA

Jane Johnston – NHS Surrey Downs CCG

Alex Cheung – NHS England and Improvement

Peter Spilsbury – NHS Midlands and Lancashire CSU

Ruth Holland – Imperial College Healthcare NHS Trust

Karen Edge – University Hospitals Dorset

Kate Thomas – University Hospitals Dorset

[2] Not all individuals attended each meeting but sometimes delegated a colleague who has been included in this list

Neil Morgan – NHS Midlands and Lancashire CSU

John Battersby – Department of Health and Social Care

Kate Thurland – Department of Health and Social Care

Alexander Royan – East Suffolk and North Essex NHS Foundation Trust

Emma Spencer – Imperial College Healthcare NHS Trust

Lisa Cummins – NHS Midlands and Lancashire CSU

Jennifer Morgan – NHS Wales Delivery Unit

Jan Hoogewerf – Federation of Clinical Informaticians

Ellen Coughlan – Health Foundation

Owen Davies – Social Care Wales

Ryan Cunningham – NHS Wales

Charlotte Henderson - NHS South Central and West CSU

Chris Beeley – Nottinghamshire Healthcare NHS Foundation Trust

David Markwick – Dorset Healthcare University NHS Foundation Trust

Forrest Frankovitch – NHS England and Improvement

20 Targeted Test Organisations

Nottingham University Healthcare NHS Trust – Acute Provider

Nottinghamshire Healthcare NHS Foundation Trust – Community and Mental Health Provider

Dorset Healthcare NHS Foundation Trust – Community and Mental Health Provider

Dorset University Hospitals – Acute Provider

Imperial College Healthcare NHS Trust – Acute Provider

East Suffolk and North Essex NHS Foundation Trust – Acute Provider

Great Western Hospitals NHS Foundation Trust – Acute and Community Provider

Open Door – Allied Mental Health Charity

NHS Surrey Downs CCG - Commissioner

NHS England and Improvement - Central

NHSX – Central

NHS Wales – Central & Provider Support

NHS Wales Delivery Unity – Public Health

Social Care Wales – Social Care

Department of Health and Social Care – Public Health

NHS South Central and West CSU – Commissioning Support

NHS Midlands and Lancashire CSU – Commissioning Support

Health Foundation – Professional Body

Federation of Clinical Informaticians – Professional Body

AphA – Professional Body

In addition to this, calls were put out for interested testers via social media including Twitter, LinkedIn, Future NHS Collaboration Platform and AphA membership.

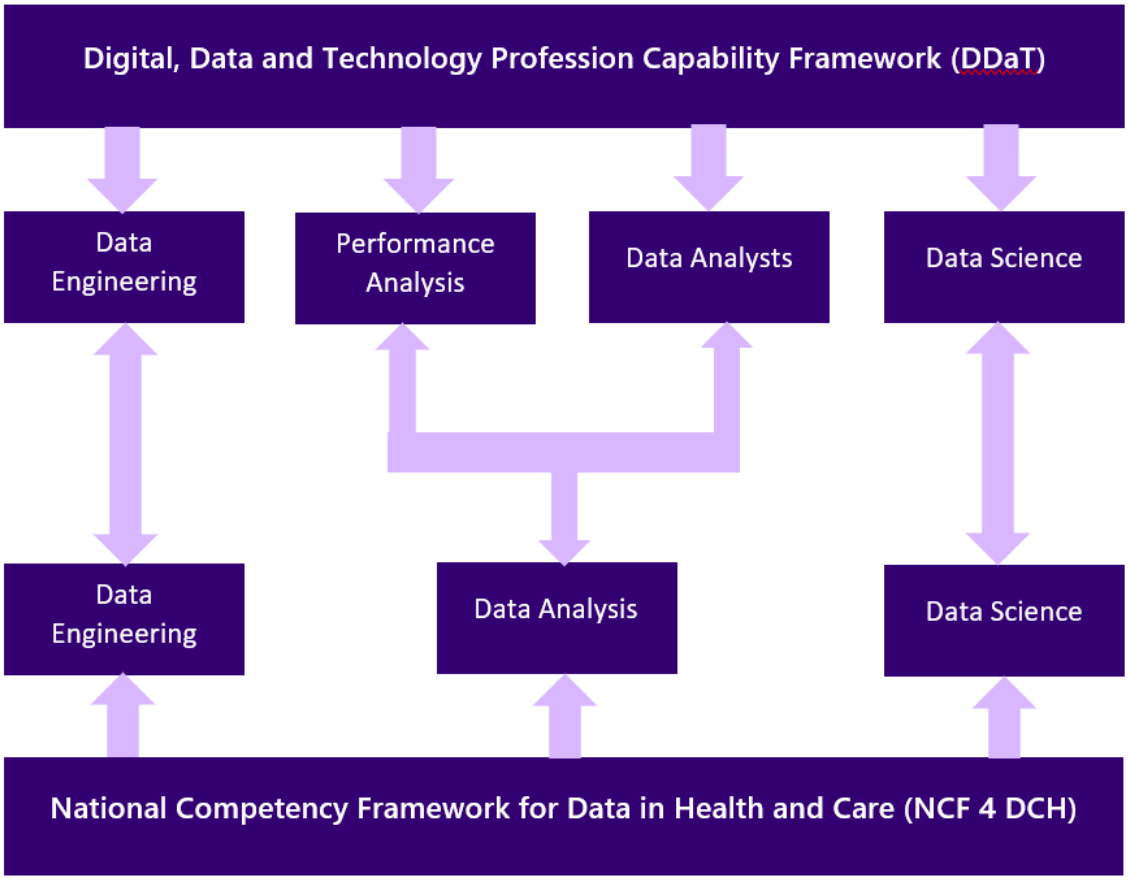
The success of this engagement can be seen in the fact that **LinkedIn alone created in excess of 60,000 non-incidental views**. This is a momentum which must be maintained to build on this success and to ensure product fatigue does not set in.

Thank you to all the people and organisations who have been so supportive in the creation of this framework. Their insights have been incredible, and it will be amazing to see them reap the benefits.

Rediscovery

The rediscovery phase involved reconciling the perceived progress with the framework development since the end of the discovery work and the actual development. Whilst DFC were under the impression that the majority of the framework had been pulled together, there had been no organisation appointed to keep the project ticking on. Nonetheless the direction of the project was clear: use the Government Analytical Framework as a starting point for developing a framework which mapped to the DDaT structure.

The rationale for how this was done is listed in the Appendices. The mapping to DDaT as shown below is also contained in the framework booklet.



Initial Development

The initial development was conducted by consensus from the working group meetings. By rationalising the most useful aspects of all the discovery documents, we were able to collate a domain neutral set of core competencies which, when allied to the AphA professional standards formed the central aspect of the core competencies.

In order to prevent the framework being too generic the Groups agreed that a specialisms and domains list should be drawn up to supplement the core skills. This list was included in basic form in the first published booklet.

One thing that needed to be reemphasised with all participants throughout the process was that a core competency framework is not a list of tasks that is undertaken within a specific role but rather the skills required to perform those tasks. The portability of the competencies across health and care is their key characteristic.

From the outset the need for a simple to use product was apparent. Many organisations had previous experience of using such frameworks and many didn't use one at all, so it was important to create something that required minimal explanation to test the appetite for the amount of effort required to understand the framework. Consequently, apart from a background piece, no detailed explanations were given for how people should use the framework. The principles in themselves should be self-explanatory even if that risks side-lining some of the finer uses.

Testing

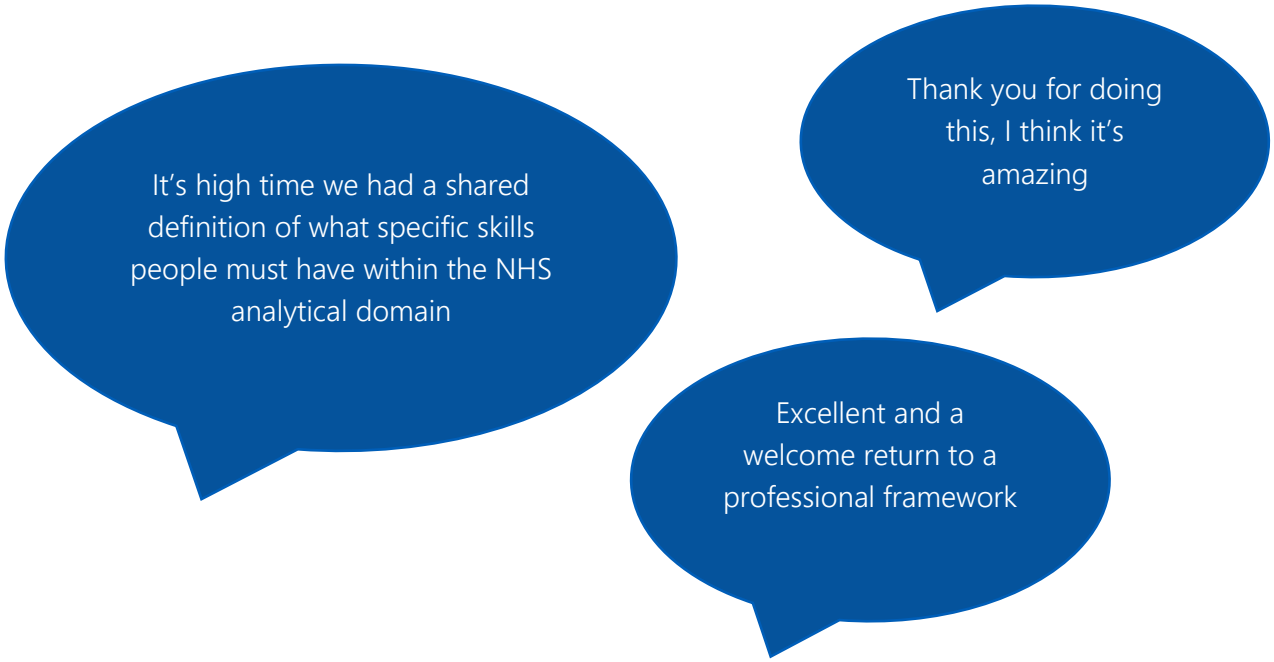
The testing strategy (in appendices) was ratified by both steering group and working group. Whilst the testing cohort did undergo some minor changes in participants the approach worked well.

From a holistic perspective, all aspects of the development process were treated as parts of testing in its broad terms. Each suggestion was worked up as an alternative to improve the product on an iterative basis. However, the interviews and questionnaires constituted the test evidence from those not directly involved in the development.

Feedback from the first phase was overwhelmingly supportive. A large volume of criticism and suggestions was expected and indeed sought after. However, such is the desire for such a framework to be implemented nationally and immediately that the feedback was unexpectedly positive:

- 91% of respondents found it useful or really useful
- 18% of people had difficulty in using it
- 89% of people thought the framework was as good or better than any other framework they had used before
- 79% of people would support its roll out nationally

Every criticism, suggestion and recommendation was accepted for review. ach item was assessed individually and acted upon unless it was in contradiction to the majority opinion or with those of a hand-picked group of specialists in that area. These were all documented on a spreadsheet and can be found in the appendices with all the positive comments removed. Some of those positive comments were:



I'm very visual so I thought the case studies were brilliant

I believe the framework would be very useful nationally

It is simple but also broad in coverage so the competencies themselves are very digestible and there's not too many of them, but enough

It exists which is fantastic! I think it is really well balanced across the framework

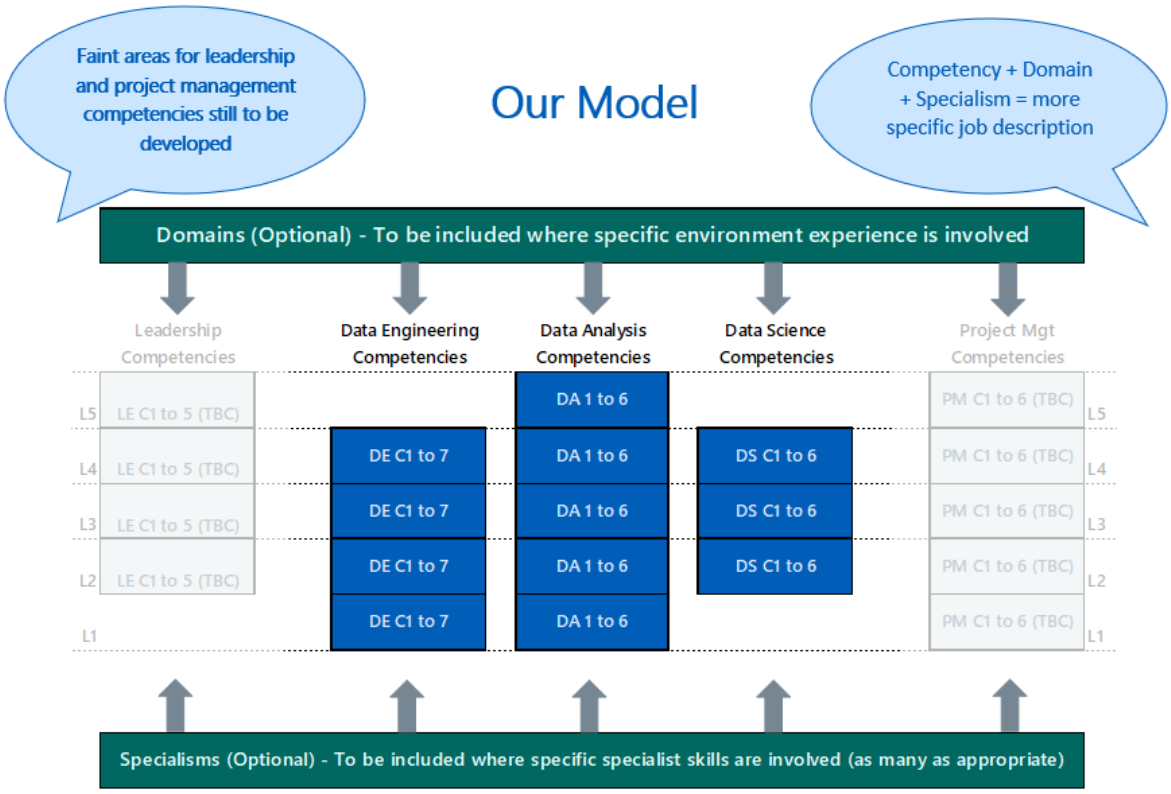
Thank you… This allowed me to have a basis of expectation for the competencies I should aim to have

You cannot underestimate the importance of it. This is huge.

I genuinely think it's excellent

Remediation and Secondary Development

The remediation led to the expansion of the framework to explain more clearly how it would work. Case studies were added, and placeholders created for additionally requested work. The expansion led to the following model:



In order to fully capture the criticisms from the first phase many of those who were kind enough to offer a critique were invited to participate in the development. This had the double positive effect of not only meeting the requirements of those critiques, but of gaining the buy-in of those who might otherwise have been suspicious of the process. Whilst this entailed a huge amount of work the second phase was sent out to testing on time.

Note that the levels are designed in such a way so that they are linked to the five different levels of AphA Professional Registration, so that the users of the competency framework could link their professional journey to achieve a formal recognition, accredited by the Federation of Informatics Professionals (FEDIP).

Second Phase of Testing

As mentioned previously, a specific group was unable to feedback on time and so the deadline was extended by a week to accommodate their insight as a specialist team with a deep understanding of the competency development process. As their volume of commentary made them unrepresentative in the statistics for their sector within the cohort, their insight, although invaluable and included wholesale in the feedback document, was removed from the quantitative assessment (see appendices).

This time the feedback was even more overwhelmingly positive, demonstrating that not only should the project move into the next phase, but that this should be done immediately whilst the support from the data specialist population is so universally behind the programme:

- 100% of respondents found it useful or really useful
- 4% of people had difficulty in using it
- 96% of people thought the framework was as good or better than any other framework they had used before
- 90% of people would support its roll out nationally (97% after modifications)

Every criticism, suggestion and recommendation was again reviewed. Each item was scrutinized individually and acted upon unless it was in contradiction to the majority opinion or with those of a hand-picked group of specialists in that area. These were all documented on a spreadsheet and can be found in the appendices with all the positive comments removed. Some of those positive comments were:


It's an amazing achievement and huge congratulations on delivering it
The explanations are very clear
Such a framework is long overdue
I really liked the points based system.
I think it is a top-shelf framework
I really liked this version. It felt like the feedback had been listened to.
I loved the example of the person that had worked in lots of organisations… it was strong
I like the user profiles. I think that makes it really come alive.
I think it is a lovely piece of work. You should be very proud.
I think it's brilliant. I really like it. A huge step.

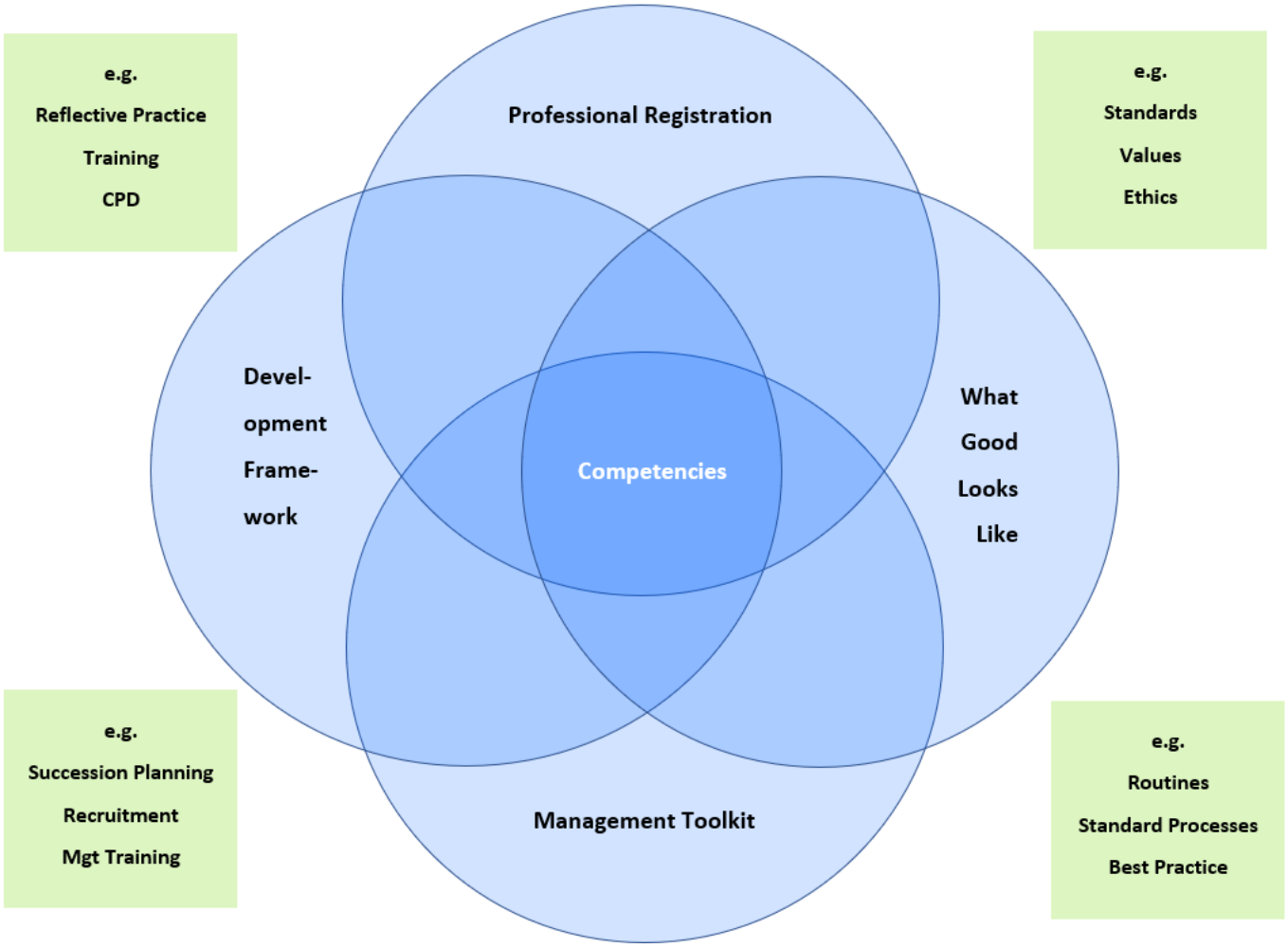
Recommendations

Further develop data science
Create Leadership Framework in conjunction with allied specialisms
Create Project Management Framework in conjunction with allied specialisms
Create Soft Skills Framework in conjunction with allied specialisms
Build links with associated skills including Business analysis Finance analysis Clinical coding analysis Risk analysis Clinical informatics Data quality
Develop a management toolkit to include: What Good Looks Like references Basic functional routines Succession planning links to development framework
Amend a development framework like NHS SCW CSU to include Career development advice Training signposting Professional development tracking Training portability Online and whole service accessibility
Appointment of curator to constantly monitor and update competency frameworks
Include Home Nations in development strategy
Develop a detailed marketing strategy including roadshow and communications
Obtain communications input on look and feel of the NHS framework "brand"

Estimated timescale without extended delays: 24 to 36 months

Recommended Long Term Plan

With the development of a competency set for leadership skills and project management to act as alternatives to the core technical competencies for Advanced, but predominantly, Leading Practitioners, it will be possible to use the framework in conjunction with something like NHS South, Central, and West CSU's excellent career development platform project to establish an overarching standardisation process that enables data family career innovation on a national scale.



Whilst professional registration is encouraged by NHS national bodies and the development platform is in progress there is no uniform management toolkit, nor an established process to manage the proliferation of "what good looks like". Consequently, there is still much to do beyond the development of the core competencies but, with the professionalisation agenda progressing with real momentum, it is an exciting time to be involved with data in health and care.

Table of Appendices

All supporting documents can be found online at:

AphA Website

These include:

01 - Agendas

02 - Minutes

03 - Project Brief

04 - Framework Rationale and Methodology

05 - Definitions and Terms of Reference

06 - Draft Testing Strategy

07 - Interview Questions

08 - NCF Participation Consent Form v1.1

09 - Test Questionnaire

10 - NCF Booklet Phase I (B&W)

11 - NCF Booklet Phase I (colour)

12 - Phase I NCF Transcripts

13 - Phase I Survey Results

14 - NCF Booklet Final Phase II

15 - Phase II NCF Transcripts

16 - Phase II Survey Results

17 - Suggestions and responses