PHC Facility Engagement Project Progress

Project Name	**PHC0062- Data Science for Doctors**
Date of Report	February 6th, 2019
Key Milestones Achieved	Course material and its content were formulated by the project lead and co-lead. Held two-day Data Science Course from February 1st – 2nd, 2019. The number of attending physicians is 21 with project lead and co-lead serving as facilitators.
Key Accomplishments	Coordinating the course arrangement with Doctors of BC for the logistic requirements, including printing, room booking and presentation tools. Course was well attended.
Key Issues/Challenges	Difficulty in finding one or two best day(s) to hold the course. Some feedback suggested to hold the course on two weekdays.
Budget Update	Space was covered by Doctors of BC. DoBC paid the catering cost but it will be billed to PHC FE Fund for reimbursement. Each facilitator was paid for 10h of prep time and 15h of course delivery time. **Current total expenses is $6,025.75**

PHC Facility Engagement Final Report

*Project Results	Facilitators succeeded in guiding the use of R programming tools. Physicians also brought in their case examples to be processed with the R programming language. *Physicians' feedback is attached.* 10 of 14 physicians (71%) feel confident in using the information from this course to support their work.
*Unexpected Outcomes	There was a significant drop-out rate leading up to the course (5 physicians sent regrets in the days and weeks leading up to the course, and 3 no-showed on the day of). Fortunately, spots were able to be offered to other PHC employees. Having attendees from decision support and physician quality groups enriched the experience for physicians and allowed connections to be

	made between physicians with project ideas and some of the people who could serve as resources for operational support and data acquisition.
*Lessons Learned	Overbooking and/or maintaining a waitlist for future courses will help ensure the course runs at capacity. For some physicians, this 2-day course is too short. Some physicians need more time to absorb the knowledge and the use of R programming.
*Recommendations for improvement (to inform future projects and strategic decision-making)	**Consider holding a follow up or 'alumni' course** if there is sufficient interest from participants, to allow them to further hone skills and ask questions after using the skills independently. **Consider 'streaming' the course** for those who have some programming experience/can pick up the language quickly vs. those who need a slower pace to understand the underlying concepts.
*Project Costs	- Project Lead (Janet Simons) claimed 25h of physician time. Project co-lead (Dan Holmes) claimed 25.50 h of physician time. Total sessionals: 50.50h x $158.97/hour = **$8,027.99** - Catering cost: **$1,950** - Printing : **$ 6.70** Grand total: **$9,984.69**

*For Summary (Final) Report Only

EVALUATION RESULT
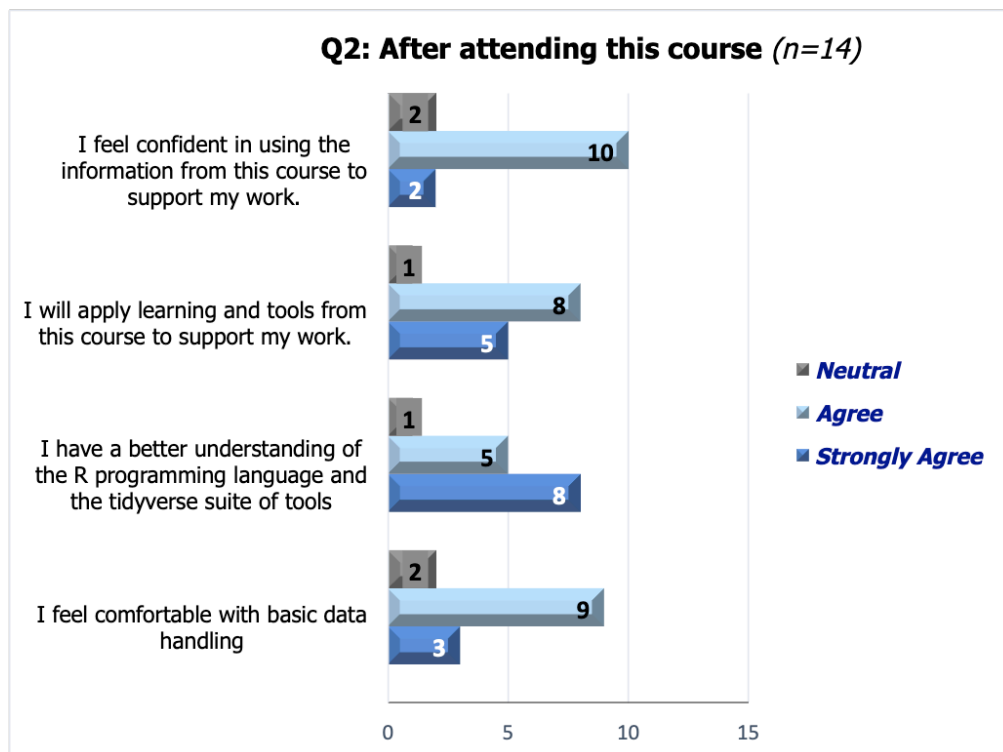**Data Science for Doctors**
Feb 1st -2nd, 2019, DoBC

The goal of this project is to facilitate physicians to analyze and visualize data to support patient-related admin requests. The expected output for physicians attending this course is to make them able to apply the "R" programming knowledge to save their time fulfilling those requests.

The first session of the course took place from February 1st – 2nd 2019 at Doctors of BC. Attended by 21 PHC Physicians, this 2-day course was facilitated by the project lead and co-lead. However only 14 attending physicians answered the evaluation forms.

Question #1: What was the most valuable or interesting aspect of this two-day course? *(n=12)*
• Understanding the potential of data analytics and an overview of the power of using "R"
• Practical application of data science
• How "R" programming can be used on healthcare data and examples

Question #2*:*

Q2: After attending this course *(n=14)*

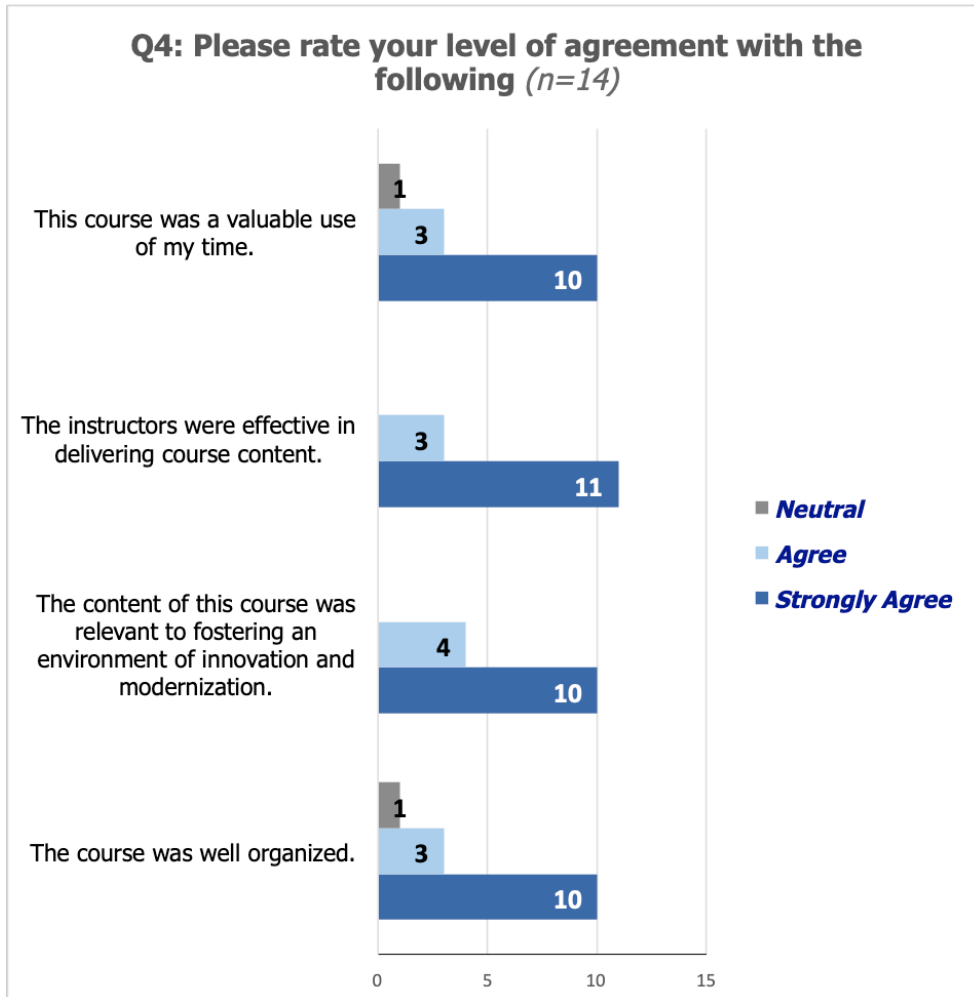|	Neutral	Agree	Strongly Agree
I feel confident in using the information from this course to support my work.	2	10	2
I will apply learning and tools from this course to support my work.	1	8	5
I have a better understanding of the R programming language and the tidyverse suite of tools	1	5	8
I feel comfortable with basic data handling	2	9	3

Question #3: Do you have any unanswered questions regarding the content shared and discussed in this course? *(n=12)*

- Likely a lot, but will try to work through some of my examples first
- Two days seems too short to absorb all the information taught in the course.
- Next level project/courses?

Question #4:

Q4: Please rate your level of agreement with the following *(n=14)*

This course was a valuable use of my time.
- 1
- 3
- 10

The instructors were effective in delivering course content.
- 3
- 11

The content of this course was relevant to fostering an environment of innovation and modernization.
- 4
- 10

The course was well organized.
- 1
- 3
- 10

Legend:
- Neutral
- Agree
- Strongly Agree

Question #5: Are there any changes you would suggest to improve future engagement events? *(n=8)*

- Great overview - could easily be expanded for those who are interested in and more detail.
- To explore other packages outside of the tidyverse. Spend a bit more time understanding the basics of data. The class was very good at going over data wrangling, but the importance of data integrity and shapes were missed.
- (Hold this course on) Weekday 9 to 4:30pm will be better

Conclusion:

- 10 out of 14 physicians felt confident in using the information from this course to support their work.
- 4 of 14 attending physicians expressed their interest to attend future data-related programming course. One of them viewed that this two-day course is too short because some physicians need more time to absorb the knowledge.
- 11 out of 14 physicians are strongly agree that the instructors were effective in delivering course content.