### Appendix 1: Format VBHC projects (multiple 2019)

| Format VBHC project |
|---------------------|
| [title of project]  |

#### ABSTRACT (Max. 150 words)

A) What does this project contribute to the improvement of the quality of care at your department or organisation?

B) How are the general competencies (for example communicator, collaborator, leader, health advocate and professional) trained and evaluated by conducting and implementing this VBHC project?

C) How will you secure this VBHC project within your organisation or at your department?

1) Medical specialty:

2) Issue:  
[describe with a max. of 150 words what the problem or issue is you would like to change with this project]

3) Goal of the project:  
[describe what your main goal is]

4) Plan of action:  
[describe your plan of action stepwise, max. 200 words. Describe the procedure and your plan of implementation. Explain both analysis and plan of action]

5) Aimed results:  
[describe, max. 150 words, your aimed results of this VBHC project, in terms of costs and effects]

6) Achieved results:  
[describe, max. 150 words, your results so far, in terms of costs and effects]

7) Evaluation:  
[describe, max. 150 words, how you will evaluate the costs and effects of your VBHC project, in the long-term]

8) Consolidate:  
[describe, max. 150 words, how you will institutionalize this project within the current structure of the organisation or department]

9) Generalizability:  
[describe if your results might be applicable at other departments, organisations or regions]

10) Role resident:  
[describe your role in this VBHC project]

11) Learning effects:  
[describe what you learned by executing this project, how you learned this and how evaluated what you have learned]

12) Mentor:  
[describe the role of the mentor / supervisor regarding the execution of the VBHC project]

☐ I agree this information will be published at the OORZON (Southeast region of Netherlands) website.
**Appendix 2: Topic list for semi-structured interview**

The topic list was constructed by two experienced researchers in this field, minor changes were made after a pilot interview.

| VBHC-Projects | 1) General information |
|---------------|------------------------|
|               | - Definition of VBHC & position in PGME |
|               | - Goal of own VBHC project |
|               | - Orientation (education, process, care delivery, …) |

| VBHC-Projects | 2) Implementation |
|---------------|-------------------|
|               | - Enhancing factors |
|               | - Hindering factors |

| VBHC-Projects | 3) Learning goals and learning curves |
|---------------|--------------------------------------|
|               | - initial goal |
|               | - achieved goal |

| VBHC-Projects | 4) Self-perceived competency training |
|---------------|--------------------------------------|
|               | - components trained & developed |

| VBHC-Projects | 5) Self-perceived effect on influencing medical care |
|---------------|---------------------------------------------------|
|               | - patient outcomes and experiences |
|               | - costs (for example in monetary terms, efficiency, others) |

| VBHC-Projects | 6) Embedding within organisation |
|---------------|---------------------------------|
|               | - reasons |
|               | - enhancing or hindering factors |
### Appendix 3: Basic characteristics and focus of projects of the residents interviewed

| Specialty   | Impl.* | Primary focus | Res.** | Explanation of exact focus                                                                 |
|-------------|--------|---------------|--------|------------------------------------------------------------------------------------------|
| R1 Neurosurgery | Yes    | Education     | No     | Development of a training session for other residents on registration and finances in their department |
| R2 Anesthesiology | Partly | Care and efficiency | No     | ICT application to register any language barriers and provide helpful tools to overcome this language barrier |
| R3 Anesthesiology | Partly | Care and efficiency | No     | ICT application to register any language barriers and provide helpful tools to overcome this language barrier |
| R4 Rehabilitation | Yes    | Care and efficiency | No     | Improving the leading time of patient letters                                           |
| R5 Neurology | Yes    | Care and efficiency | No     | Implementation of digital patient letters to improve lead time                           |
| R6 Pediatrics | Yes    | Care and efficiency | No     | Give residents a day at another speciality to learn from each other and see possibilities to make work more efficient |
| R7 Rehabilitation | Yes    | Care          | Yes    | Stop standard laboratory testing on admittance, only perform test when necessary         |
| R8 Psychiatry | Yes    | Care and efficiency | Yes    | Send a standard SMS reminder before outpatient consults to reduce the number of no-shows |
| R9 Gynaecology | Yes    | Care and efficiency | Yes    | Direct removal of a catheter after a laparoscopic hysterectomy                           |
| R10 Pediatrics | No     | Care and efficiency | No     | Implementing a new structure for duty schedules to bring more continuity on the ward    |
| R11 Neurology | No     | Care and efficiency | No     | ICT application to show when a patient had completed in hospital treatment and is waiting for a bed elsewhere |

* Implanted at time of the interview.

** VBHC project was part of a research project or PhD trajectory
Appendix 4: Tips for residents’ performing a VBHC project within a modified model of change

Examine the VBHC problem thoroughly
- Complete assessment of the current situation from multiple perspectives (patient, doctor, organisation, etc)
- Take the culture of the organisation into account

Establish a sense of urgency and/or relevance

Identify potential problems that could stand in the way of your change
- Identify and involve all stakeholders

Form a powerful coalition with enough power to lead the change

Different key roles:
- Sponsor and/or advocate (can be a supervisor or mentor for instance)
- Implementer (often resident)
- Change agent (often resident)

Create a vision and develop strategies for achieving that vision
- keep it small and keep it simple, within your scope of power

Communicate your vision

Plan for short-term wins
- make sure you can show what is improved

Consolidating improvement and still produces more change
- implementation is more than changing a protocol. All employees involved need to work in the new way.

Institutionalizing your change so it is incorporated in the new culture
- make sure you can show what is improved to support the sense of urgency to stick to the new way of working
- secure the new way of working in ways that are not solely depending on your presence