

## SHORT TERM SCIENTIFIC MISSION (STSM) SCIENTIFIC REPORT

This report is submitted for approval by the STSM applicant to the STSM coordinator

**Action number: CA15222**

**STSM title: Big data and the interpretation of person-centred care in a European context**

**STSM start and end date: 05/10/2019 to 21/10/2019**

**Grantee Name: Cornelia van Diepen**

### PURPOSE OF THE STSM:

The purpose of the STSM was to start big data analysis projects analysing the attributes of person-centred care (PCC). I aimed to collaborate with this research group and interpret the big data output from a social science perspective and to provide the team with knowledge on person-centred care and contribute to the analysis of this multidisciplinary issue.

Furthermore, this STSM was created to support and improve the multidisciplinary R&D network on cost containment and quality of care and bridge the cultural gap between traditional medical, care science and technology research and other science domains in order to develop integrated solutions for cost containment combined with the quality of care.

### DESCRIPTION OF WORK CARRIED OUT DURING THE STSMS

The work carried out during the STSM consisted of designing the research projects and discussing with the research group on how to carry out the projects and what the aims and focus would be. Important for these projects was to have solid translations of person-centred care in the various European languages. This is an ongoing process, but I could contribute by providing and confirming the definitions in Dutch, Swedish, German, Norwegian and Danish.

These translations of PCC were put in a Twitter API that could gather all the tweets with these key terms in the previous 10 days. A pilot study was performed to calculate how many tweets we could expect and for how long we should gather these tweets. The pilot gave almost 1000 tweets, so having a full month as collection period would come up to around 3000 tweets, which are more than enough for a reliable content analysis of PCC on Twitter. This did mean that part of the data collection and analysis would have to be performed outside of the STSM.

The second step was to gather the data, which was easy for the first study, which included the number of tweets and Google searches made between October 2014 and October 2019. The search terms were quickly tested to see the prevalence, and it became clear that only the English translations of PCC would provide enough entries for a proper analysis. 'Person centred care' was by far the most Google searched and tweeted about and was, therefore, chosen as the terms for analysis.

The initial results section was created for this study and the framework and literature review for the content analysis were created during the STSM.

**DESCRIPTION OF THE MAIN RESULTS OBTAINED**

The main results of the STSM were the creation and data gathering of two research projects. The results of the study involving Google searches and Twitter output over the past 5 years has shown that with normalised data, there is no connection between Google searches for person-centred care and tweets with that term. The results of the second study on the content analysis of tweets containing PCC references is still unclear. The data gathering process ends October 31<sup>st</sup> (which is 10 days after the end of the STSM), and the analysis of the tweets will begin in November.

**FUTURE COLLABORATIONS (if applicable)**

The future collaboration entails the publication of two articles in peer-reviewed journals. Furthermore, as other members of the group are going on STSMs, further collaborations can emerge. For now, the field of big data analysis and person-centred care has many more possibilities for collaborations in the future.