Appendix 1

Initial Literature Review

A literature review was undertaken as part of the project planning process to establish a deeper understanding within the group of expedition medicine as a field of practice. The search strategy for this review included the utilisation of numerous scientific databases including, but not limited to, Google Scholar, Medline, and Web of Science. The grey literature was also searched during this time. There was no limit set on publishing dates but literature that was published more recently was preferred where possible. All literature included was published in the English Language as that is the common language amongst group members. As the group is based in the UK and the scope of the project was taken from a UK medical perspective, the majority of the literature was focussed in that regard. The term “expedition medicine” is interchangeable on many platforms with “wilderness medicine” so both of these terms were used during the literature search. This literature review was supplemented by additional literature research that was undertaken after primary data collection from the study surveys and interviews. All papers and findings from the literature searches were critically appraised for relevance to the study as well as their overall reliability and validity. This was to ensure only the best and most appropriate literature was included in the study findings.

Collection of Data - Survey and Interviews

From the knowledge gained in the literature review, the group was able to focus the study aim and agree on the challenge they were to address through the project. An ethics form was submitted to the University of Edinburgh with appropriate information regarding the steps the project was going to take to fulfil its primary research. This can be viewed in Appendix 5. After ethical approval was granted, a questionnaire was developed through Microsoft Forms to be sent out to medical professionals and key stakeholders in the expedition business. The finalised questions included in this survey can be seen in Appendix 2. This included demographics of the respondents as well as their experience level within healthcare and/or expeditions. It also addressed the key questions the study sought to address, namely whether expedition medicine should become a specialty. A smaller questionnaire was developed to gather public perceptions on the study challenge and this can be viewed in Appendix 3. These surveys were opened on 08/02/2023 and closed to responses on 11/03/2023. They were distributed by the group members to other medical students within the University of Edinburgh as well as other medical schools, personal contacts currently working in healthcare, university society webpages, organisations with an interest in wilderness or expedition medicine and the lay public. Survey respondents’ personal details were not collected so remained anonymous to the group throughout the study.

Semi-structured interviews were undertaken by members of the group to gain a more in-depth view of the challenge being studied. Interview invites were distributed to organisations and contacts who would be considered key stakeholders in the business. From the many invites sent, four interviews were held. These were each undertaken by

3 members of the group over Microsoft Teams or Zoom. The questions that formed the basis of these interviews can be viewed in Appendix 4. The interviews were kept within 45 minutes and notes were typed throughout by one of the group members. The interviewees were informed that their personal details would remain anonymous in the project report and none voiced any concerns regarding the project in their interview. The results from the two surveys and the interviews were collated and analysed by members of the group.

Analysis of Results - Survey Processing

The survey(s) data was exported to Microsoft Excel. Processing steps were taken to provide homogeneity of the answers to allow for statistical processing within "R-Studio", i.e "N" or "no" were changed to "No". The processed survey data was then imported into "R-Studio" for quantitative analysis, and "NVIVO" for thematic analysis.

R-Studio Quantitative Analysis

The data from each survey was input into R-Studio. The data was further subdivided by the appropriate characteristics to count multiple variables and how they related to each other.

NVIVO Thematic Analysis

All extended response questions were designed to obtain more information about a previous "Yes", "No", or "No Opinion" answer in the survey. In the first stage of analysis, responses were linked so that all respondents who voted "Yes" to question 1, had their extended response questions (which asked for further detail) combined together. *Figure 1* illustrates this process for the question pertaining to NHS funding of expedition medicine. This linking process was completed for all "Yes, No, No-opinion / NA" questions which had extended-answer adjuncts.

Within each section, common themes were extrapolated and "Coded" for. A second passing then placed each response into one of the "Coded" themes, allowing answers describing multiple themes to be placed within multiple "Codes". This process was repeated for each of the extended response answers. Outputs indicated common themes described by the respondents, and quantified the frequency that these themes were mentioned.

Analysis of results - Questionnaire Processing

During the interview short notes were taken for each participant, as transcriptions were not authorised. Notes were reviewed shortly after each interview to maximise retention and ensure completeness of findings.

Findings were imported into NVIVO for thematic analysis, where an inductive approach was completed through several steps. Initially, documents were reviewed and common

themes were identified pertaining to each of the main study questions. Themes and subsequent sub-themes were then created in NVIVO. Each interview response document was then re-reviewed and “Coded” into each of the themes and sub-themes, providing a concise list of relevant findings from all interviewees