**WHRI Website:**

**Research Project Template**

Please complete one form per research project/program you would like displayed on the WHRI website. This page will provide you with a space to help recruit participants, disseminate findings and showcase other knowledge translation activities resulting from the study. The content you provide in this form will be connected to the research team’s bios provided by the membership information. If any of these fields do not apply to this project, please leave them blank.

If there are supporting documents you would like embedded on the project page (i.e. consent forms) or if you have any questions regarding this form, please contact Nicole Prestley at [Nicole.Prestley@cw.bc.ca](mailto:Nicole.Prestley@cw.bc.ca) or by phone **604-875-2424 ext 4956**.

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| **Title:**  (same as consent form) | WelTelOAKTREE: Text Messaging to Support Patients with HIV/AIDS in British Columbia |
| **Principal Investigator:** | Dr. Melanie Murray, MD, PhD, FRCPC |
| **Primary Contact:**  (name, title, phone, email) | Evelyn Maan  Research Program Manager  604-767-5044  emaan@cw.bc.ca |
| **About the Study:**  (100 words or less plain language summary) | WelTel Oak Tree is a study that enrolled 80 HIV+ individuals from the Oak Tree Clinic at BC Women's Hospital. Participants received a cell phone and/or unlimited text messaging capability if they did not have it already, and for one year received a weekly text message stating "How are you". Participant problems and non-responses were followed up by a nurse. Data on demographics, CD4 counts, HIV viral loads, HIV medication adherence and attendance at appointments were collected for the year prior to the intervention and during the intervention for comparison. Data assessing quality of life was also collected at three points during the one year study period. Cost effectiveness and cost benefit of the intervention were looked at to assess feasibility of transferring the intervention to a programmatically funded facet of patient care. |
| **Why is this research important?** | In Canada, around 65,000 people are living with HIV/AIDS, approximately 14,300 of whom are women. AntiRetroviral Therapy (ART) has led to enormous improvements in the health and survival of individuals with HIV. Moreover, by decreasing the amount of virus circulating in the body (viral load), HAART offers the possibility of treatment as a preventative measure. However, high levels of engagement in care, timely initiation of ARVs, and adherence to medication are required to maximize the benefits of HAART in order to prevent resistance, progression to AIDS, transmission or mortality. Unfortunately, engagement in ongoing HIV care can be poor, with one study from the United States (US) showing only 52% retention in care over 1 year. Further, adherence among high-risk populations is low, with women being less adherent partly due to their role as care providers for children and partners, potential abuse in partner relationships, fear of stigma, homelessness, and concerns regarding side effects. Conversely, active drug use (especially cocaine), lack of social supports, and depression are just a few of the variables that affect both men and women alike. Current methods of engagement in care have failed to overcome these barriers to adherence, which makes finding an effective adherence intervention critically important. Mobile health (mHealth), the use of mobile phone technology to deliver health care, is an emerging area of disease management that can assist in patient adherence to prolonged chronic treatment regimens and monitoring of care. A randomized controlled trial (WelTelKenya1), conducted by Dr. Richard Lester et. al, tested the clinical effectiveness of text message support for HIV treatment adherence in Kenya. WelTelKenya1, of which 67% were women, showed that patients receiving text message support had significantly higher rates of treatment adherence and viral suppression than patients who received standard care alone. In Canada, cell phone penetration exceeds 70% and is expected to reach 100% within the next decade. The WelTel system offers a clinical management model that can be carried out using standard services offered by cellular network providers with minimal additional infrastructure and is both flexible and scalable. |
| **Study Status:**  (e.g. recruiting, data analysis, manuscript development, complete) | The study is no longer enrolling participants. Data analysis and manuscript preparation is underway. |
| **Who can participate:**  (short description, attach consent form) | You must have met the following criteria in order to be enrolled in the study:  1. have been a patient at the Oak Tree Clinic for at least 1 year prior to study entry so you have a year’s worth of information to compare against and have had a clinic visit within the last year  2. be aged greater than or equal to 14 years  3. have a CD4 count less than or equal to 500 cells/mm3 or previous prescription for HIV medication (other than for pregnancy) prior to the past year, (indicating that for the past year you qualified for HIV medications)  4. have any detectable viral load greater than or equal to 200 copies/mL (on or off meds) in the past year  OR  1. are a woman being discharged from a correctional facility and who is also an Oak Tree Clinic patient  OR  1. are one of the 25 participants in the pilot study, WelTelBC1, who wishes to continue receiving weekly text messages |
| **Study Results/Publication:** | - Mean ART adherence improved from 61.7% to 68.3% (p<0.0001), and median population HIV log10VL declined by 0.70 log (p=0.007) from pre-intervention to intervention years.  - Median VL decline for responders (response rate ≥50%) was 1.03 log (vs. 0.39 log, p=-.03), and adherence increase 13.7% (vs. 0.8%, p=0.008) versus non-responders (response rate <50%).  - Managing “problem” responses required 53 minutes of Health Care Practitioner time per high-risk, vulnerable participant enrolled per year, for a cost per patient of $45.20.  - Total intervention cost (including phones, plans, staff time) was $375.74 per patient per year.  Friesen K, Qiu AQ**, Goktepe O, Maan EJ, Pick N, Alimenti A, Kestler M, Money D, Lester R, Murray MCM.** Weekly text-messaging (Weltel) to engage vulnerable HIV+ populations: It works, what does it cost? (Oral Presentation, 25th Annual CAHR Conference, Winnipeg, MB. May 12-15, 2016).  Friesen K, Qiu A**, Goktepe O, Maan EJ, Pick N, Alimenti A, Kestler M, Smillie K, Money D, Lester R, Murray MCMand the WelTel OAKTREE Study Team. “**mHealth to Improve Health: Effectiveness of a weekly text messaging intervention to improve ART adherence and HIV Viral Load in a Canadian Context: WelTel OAKTREE.” (Oral presentation), The 6th International Workshop on HIV and Women, Boston, February 21-22, 2016.  **Murray, MCM**, Friesen K, O’Shaughnessy S, Albert A, Maan EJ, Pick N, Alimenti A, Kestler M, Smillie K, Money D, Lester R, and the WelTel OAKTREE Study Team. mHealth to Improve Health: Effectiveness of a weekly text messaging intervention to improve ART adherence and HIV Viral Load in a Canadian Context: WelTel OAKTREE. (Poster Presentation), International AIDS Society Meeting, July 19-22, 2015. Abstract WEPED849, <http://www.ias2015.org/WebContent/File/IAS_2015__MED2.pdf>.  Friesen K, O’Shaughnessy S, Maan EJ, Makela N, Pickering B, Lester R, Pick N, **Murray M**. How R U? WelTelOAKTREE: Text messaging and nursing support to improve care for HIV positive patients taking antiretroviral therapy (cART) in British Columbia. (Oral Presentation), 2014 Canadian Association of Nurses in AIDS Care (CANAC) Conference, April 24-26, 2014. |
| **Co-Investigators:** | Dr. Ariane Alimenti, Karen Friesen, Dr. Richard Lester, Dr. Deborah Money, Dr. Neora Pick, and Dr. Laura Sauve |
| **Funded by:** | Gilead Sciences Inc. and Bristol-Myers Squibb |
| **Partners:** |  |
| **Other Attachments:**  (e.g. Newsletters, videos) |  |