



## PROJECT SUMMARY

<b>Ref No.:</b> MRIC-SIRGS-2104	<b>Title:</b> Smart Diabetes Education
<b>Local Institution:</b> Université Des Mascareignes	
<b>Collaborating Institutions:</b> APSA Diabetes Care Centre, Université de la Réunion, Centre Hospitalier Universitaire Felix Guyon	
<b>Project Leader</b>	
Mrs B. Sabeena Dowlut	Université Des Mascareignes
<b>Research Collaborators</b>	
<b>Name</b>	<b>Organisation</b>
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Dr Xavier Debussche	Centre Hospitalier Universitaire Felix Guyon
<b>TECHNICAL ABSTRACT</b>	
<p>Diabetes is a “chronic condition that occurs when there are raised levels of glucose in the blood because the body cannot produce any or enough of the hormone insulin or use insulin effectively” (International Diabetes Federation, 2017). It is being categorised as “not only a health crisis but a global societal catastrophe” (International Diabetes Federation, 2017). Mauritius as well is not spared from this calamity, 22.8% of the Mauritian population suffers from diabetes coupled with a 19.5% who are pre-diabetes.</p> <p>In the most recent survey conducted by the Ministry of Health and Quality of life (Ministry of Health and Quality of Life, 2015), it is reported that 33% of the diabetic patients have a poorly controlled diabetes hence the increased probability of developing diabetic complications. One of the known means to better control diabetes is structured diabetes education which is considered to form an integral part of diabetes care and it had also been proved to be effective in controlling type 2 diabetes (Norris, Engelgau, &amp; Narayan, 2001). In research being carried out in the region (Balcou-Debussche, 2012) whereby therapeutic education in chronic diseases, its complexity, particularities and variations in numerous contexts were questioned, the findings showed that learning situations involving patients with chronic diseases can prove to be promising in countries such as Mauritius.</p> <p>Smart Diabetes Education, a research-innovation project, is an initiative to alleviate the burden of diabetes by educating patients suffering from diabetes type 2. An innovative education programme for diabetic patients consolidated using information technology</p>	



will be proposed and promoted to create awareness for self-care practices and encourage changing behaviours. This project has as partners, Université Des Mascareignes, APSA Diabetes Care and Experts from Reunion Island, more precisely from CHU (Centre Hospitalier Universitaire) and University of Reunion Island.

The objectives of this project are three folds:

The first objective is to promote education for diabetes patients which is not limited to information and explanations but structured ones. The diabetes education sessions will empower these patients such that they can self-manage their pathology to better control the risk factors associated with diabetes.

The structured process known as the learning nest will be implemented in the diabetes education program proposed in this project. The FMC (Formation des Malades Chroniques) resources will be adapted so that they comply with the cultural context of Mauritian. These 2 methodologies and resources have been developed by Dr. X. Debussche and Prof. M. Balcou Debussche (Debussche & Balcou-Debussche, 2011).

The second objective is to measure health literacy of participants and to evaluate the diabetes education program. Two tools which are “psychometrically sound instruments developed by Osborne (2007) will be used: the HLQ (Health Literacy Questionnaire) and the HeIQ (Health Education Impact Questionnaire). The HeIQ will help in a comprehensive evaluation of the patient education program and the HLQ will allow to measure the health literacy strengths and weaknesses of the participants (Osborne, Elsworth, & Whitfield, 2007).

The third objective is to integrate technology in the current education processes. Given the numerous benefits and significant progress technology can bring in health care education program, its integration in the current processes can help in consolidating the existing diabetes education program. Some of the gaps identified during evaluation will also be addressed wherever possible through the use of technology.

**Key Words:** Diabetes, Structured Diabetes Education, Diabetes Care, Information Technology