

## 2021 Final Year Project Definition Form

**Project Title:**

Improving the efficiency and productivity at Community Oriented Substance Use Programme (COSUP) project sites

**Company details:**

COPC (Community Oriented Primary Care) Research Unit, University of Pretoria

<https://www.up.ac.za/up-copc-research-unit/article/2934203/cosup>

**Company background:**

The UP COPC Research Unit was established in 2015 by the Department of Family Medicine to explore and innovate the practices and processes of ICT enabled community-oriented primary care. The research activities within the unit focus on innovative and sustainable contributions to reengineering primary health care in order to change health outcomes for ordinary people in a meaningful way and to significantly contribute to health care capacity development within and beyond the COPC project sites. Initiatives/projects currently being managed by the COPC RU include Anglo PHC, SAPRIN, COSUP (awarded top Cities Network Project in 2020), informal settlements, vaccine trials and Gauteng Province Community Health worker training.

The City of Tshwane signed a Service Level Agreement with the University of Pretoria (2016) to assist with the implementation of a community-based substance use programme (COSUP) in the greater Tshwane area, to minimise the health, social and economic impacts of substance use through the prevention, identification and resolution of substance use disorders in the City of Tshwane using a community-oriented primary care approach. To date COSUP has established 17 service delivery sites across four of the 7 Tshwane regions, enrolled 9484 PWUD (people who use drugs) in the programme and initiated more than 2000 clients on the OST (opioid substitution programme). The sites deliver comprehensive harm reduction services including clinical, psychosocial, skills development and needle and syringe exchange. Services at each site are delivered by a core multidisciplinary COSUP team which includes a clinical associate, social worker, community health worker/s (CHW), peer educator/s and a data capturer.

**Project description:**

The impact of the Covid-19 pandemic on our staff and clients (patients) at the COSUP community-based project sites has highlighted existing inefficiencies and the absolute need, identified early 2020, to analyse and devise/improve any systems/processes in delivering quality services to the people who use drugs (PWUD) at out-patient level (a new concept developed specifically for COSUP and the first in South Africa). Many of our staff members have been affected by Covid-19, with remaining staff having to manage services. During lockdown supervision of staff at sites (many isolated) was neglected with virtual meetings often failing due to connectivity issues.

There are many opportunities for processes to be improved, standardised and organised. Staff are not functioning optimally with often unclear roles and responsibilities at the sites; control measures are a challenge (especially within the 'new normal'); data systems are not optimal – impacting data quality and leading to frustrations amongst staff – a major bottleneck within the system which needs to be eliminated. Another unfortunate consequence of the pandemic is the decrease of the project budget by more than 50%. Within these limitations we need to improve efficiency, productivity and still ensure patient access to quality services at the sites. The substance use environment is quite challenging with a very unpredictable client/patient base. With Covid-19 we also need to account for staff variability.

We believe that working in close collaboration with industrial engineer/s who focus on how to get the work done more efficiently, balancing many factors, such as time, number of workers needed, available technology, actions workers need to take, achieving the end product with no errors, staffs' safety, environmental concerns, and cost, will be of immense benefit to improving the success of our programme. To survive in the current very challenging environment, it is important for the COSUP look at ways to improve efficiency and productivity. We need to explore a new, easy and cost-effective way of providing services which can be used as a model for the National Department of Health to roll out a Substance Use programme throughout South Africa.

As a result, we identified two final year Industrial Engineering (IE) project topics for 2021. These projects will focus on analysing and improving the efficiency and productivity of processes and operations at various COSUP project sites. The specific solution approaches and industrial engineering techniques that will be used for these projects will differ depending on each site's unique processes, challenges or opportunities. Some IE techniques that could possibly be used include, amongst others, Business Process Re-engineering, Optimisation, Facility planning, Simulation, Work study, etc.

**Industry mentorship:**

Dr Lorinda M Kroukamp – Public Health Specialist & Project Manager, COSUP

**Industry mentor  
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***Project topic application process:***

Candidates interested in participating in the COSUP project, can apply directly to Dr Lorinda M Kroukamp (Email: [lorindakroukamp@gmail.com](mailto:lorindakroukamp@gmail.com)), cc Dr Wilna Bean (Email: [wilna.bean@up.ac.za](mailto:wilna.bean@up.ac.za)) by **28 February 2021**. In your application please submit your CV (with contact details) and a paragraph motivation for applying.

**Any other relevant information:**

*(Please include any other relevant information)*