

ANNUAL REPORT

2019-2020





MEDICINES OPTIMISATION INNOVATION CENTRE (MOIC)

Annual Report 2019 / 2020

Context

The Regional Medicines Optimisation Innovation Centre (MOIC) aims to work towards better patient outcomes by initiating, developing and sharing best practice with regards to medicines use. This is achieved via the following primary activities:

1. Developing a systematic approach to finding and testing solutions for Health and Social Care (HSC).
2. Combining strengths in clinical pharmacy, pharmacy practice, research and service development with technology and business acumen.
3. (a) Developing a medicines optimisation network, linking with the HSC and other life science networks and innovation centres in NI and Europe.
(b) Support knowledge sharing both with the HSC and wider networks and the development of collaborative working partnerships and joint working arrangements between participants.

MOIC Workstreams

In addition to work around Infrastructure, communications & marketing, MOIC activity is split across four workstreams, namely to:

- Focus on the needs of patients and the NI population.
- Accelerate the adoption of innovation into practice to improve clinical outcomes and efficiency.
- Build a culture of partnership and collaboration.
- Make a meaningful contribution to the NI economy.

This report will describe the key achievements in these areas during 2019/2020.



Infrastructure, Communications & Marketing

A team of Programme Managers are key to the functioning of MOIC. During the year, two temporary Programme Managers were appointed in order to cover periods of maternity leave taken by substantive post holders. Following the award of funding under two major grants, a recruitment exercise to expand the Programme Manager team commenced and it is hoped that this will be completed in the 2020/21 year. In order to assist with building a cadre of skilled researchers within the pharmacy workforce, the MOIC Board have approved a business case which will part-fund a Consultant pharmacist at the Western HSC Trust. The individual will spend 25% of their time working on research and service development activities with MOIC and it is hoped that they will be appointed during 2020/2021.

Following work undertaken with Finance and Corporate communications during 2018/19, funding was secured and a permanent (0.6WTE) Communications Manager was appointed to MOIC in May 2019.

The MOIC team have attended a range of conferences and workshops across the UK to assist with the promotion of MOIC. In addition, results from specific projects have been disseminated through a variety of means including the publication of papers, attendance and presentations at a range of conferences, website and Twitter. A list of publications, reports and presentations is included in Annex A.

Work commenced on rebuilding the MOIC website, this included revising the design and content of the site. It is anticipated the new website will be available in July 2020. MOIC also has continued to grow its audience on Twitter and now has over 1000 followers. This assists with communication with wide audience.

Focus on needs of patients and Northern Ireland population

When in hospital, it is likely that changes will be made to medications. During 2018/19 MOIC demonstrated that follow-up by a clinical pharmacist post-discharge from hospital led to a reduction in the 30 and 90 day readmission rates and had positive health economic benefit. Following these positive results funding was awarded by Northern Ireland Transformation Funding programme to roll this initiative out as a service in Antrim Area Hospital. Between September 2019 and February 2020, 217 patients were treated using this service and the pharmacists made an average of age 111 interventions/month (over 60% are Grade 4 or above when graded using the Eadon scale). The service was paused in March 2020 due to Covid pressures.

In primary care, work continues with the Health & Social Care Board (HSCB) to evaluate new services that are being developed. During the 2019/20 year this included:

- Completion of the evaluation of a new minor ailment service for cough, colds and flu-like symptoms in NI. This service was run in community pharmacies (n= 482) during the winter of 2018/19. Under this service, patients were encouraged to consult with their pharmacists for sore throat, colds and flu-like illness. The service operated from December 2018 until March 2019. During the 2019/20 year, MOIC evaluated patient consultation forms and obtained feedback from community pharmacy/general practice staff involved in the pilot. The final report on this pilot recommended that should be available from all eligible community pharmacies for the 2019/20 winter season.
- During the 2019/20 flu season a number of pharmacies in Northern Ireland tested a service that allowed administration of the flu vaccination to health care workers. This pilot service commenced in October 2019 and enabled frontline Health & Social Care workers within the Western HSC Trust area to receive their flu vaccination from one of the 26 participating community pharmacies. Full evaluation will be undertaken at the end of the flu season (April 2020), however figures for October and November 2019 indicated that 173 vaccines had been administered.
- MOIC worked with HSCB on the evaluation of a point-of-care testing pilot in primary care that was being piloted during the winter of 2019/20. The pilot focussed on the use of C-reactive protein (CRP) results to determine if antibiotics were required for cough, cold and flu-like symptoms and was available across nine pharmacies in the WHSCT region and eight pharmacies in the NHSCT area. The test was available for patients registered with one of the 10 GP practices involved in the pilot. Final data for analysis was not available due to the Covid-19 pandemic.
- Within Northern Ireland, transformation funding has been awarded to the HSCB in order to scope and establish new models of prescribing by non-medical prescribers. MOIC have been invited to sit on the Steering Group for this initiative and will contribute to the review of methodology and any evaluation as required.

The MORE Programme Board was established to oversee a number of different work strands designed to optimise medicines use across NI. As part of this remit, the use of nutritional supplements in primary care was considered and MOIC assisted with this process. A final report was presented to the MORE Programme Board in October 2019.

Throughout the year, MOIC continued to work with the Mid & East Antrim Agewell Partnership (MEAAP) on a social prescribing project. Under the project around 1100 eligible people, aged ≥ 70 years were supported through health and wellbeing Hubs and they were able to avail of a range of Alternative Care Prescriptions (ACPs). MOIC assisted with evaluation of the pharmacy aspects of this work, which focused on the effectiveness of an IMPACT pharmacist working in the Hub, and the effectiveness of the community pharmacy delivering community pharmacy services to service users. The final data analysis and report will be completed during 2020/21.

Primary Care and Community Together (PACT) explored access to pharmacy services for vulnerable groups. In particular, the project considered if access to services for isolated people is effectively facilitated by the PACT model and if community pharmacies can work collaboratively to deliver services. During the year, MOIC prepared an evaluation report which was submitted to DH.



The Antibiotic Review Kit for Hospitals (ARK-Hospital) is a five-year applied research programme, funded by the National Institute for Health Research (NIHR), that provides information for prescribers about decision-making regarding antibiotic use. The Northern Health and Social Care Trust (NHSCT), supported by MOIC, continue to be part of this study. During the year the ARK model was introduced at the Causeway site and stopping antibiotics within 72 hours increased from a baseline of 2% to 11%.

In the area of medicines adherence, work has commenced on a new project for those with Type 2 diabetes. The project is being carried out with colleagues at the South Eastern HSC Trust and Queen's University Belfast and will use dried blood spots to assess patient adherence to metformin. After receiving ethical and research governance approval, recruitment for this study started in December 2019.

Reducing avoidable medicine related admissions (MRAs) is a priority for health and social care. However, there is currently no tool routinely used in Northern Ireland to support the identification of MRAs and data on numbers of MRAs in NI is lacking. MOIC is collaborating with researchers in Sweden, Belgium and The Netherlands to explore two validated tools to screen for MRAs; the AT-HARM tool and the OPERAM DRA Adjudication Guide. This work will inform discussions on the suitability of a tool for routine use to target patients to further reduce MRAs and has the potential to provide data on possible MRAs in NI.

MOIC will be working with colleagues from the Child and Adolescent Mental Health Service (CAMHS), to pilot a new online outcome measures tool for those using the CAMHS Service. At this stage, the appropriate governance arrangements are being secured and it is hoped that the pilot will commence in early 2020/21. It is anticipated that this project will improve the efficiency of clinical consultations.

Accelerate the adoption of innovation into practice to improve clinical outcomes and efficiency

A key area for continued development has been the use of secure analytic tagging with our commercial partner Healthcare Analytics. Using this technology, it is possible to track medical equipment as it moves through the hospital and community settings. This can be used to ensure that assets can be found and to record cleaning and maintenance of medical equipment. Beacons have been installed across the Antrim site and readers have been received. Following the tagging of beds the functionality of the system was tested. A business case to permit the appointment of a systems manager to oversee the roll out of this initiative has been developed.

Under the Small Business Research Initiative (SBRI) scheme, commercial companies work closely with HSC Trusts in order to find new solutions to health and social care problems. During 2018/19 two projects aimed at developing systems to optimise use of hospital pharmacy staff skill-mix concluded. Work has commenced with the commercial partners to explore the next steps for the development of these systems, which aim to ensure that pharmacy staff are directed to where their skills are needed most to improve patient care.

Antibiotic resistance and healthcare acquired infection is a major global challenge. Along with colleagues in microbiology and universities, MOIC is involved in a number of projects. Given the number of projects in this area, a group to consider all research and service developments in



Healthcare Acquired Infection has been established. The group, based at NHSCT, has representatives from medicine, nursing, pharmacy and MOIC.

MOIC is part of a study that is considering antibiotic thresholds, which is being carried out in five Centres across Europe. Using this approach, prescribers must use a range of antibiotics below certain threshold levels. During the year, part of this work was published in Nature Microbiology. A PhD student is continuing to collect Trust data in this area and a poster was presented at ECCMID 2020. In addition to the threshold work, the student is working on the Global Point Prevalence Survey within the Trust and is considering the institutional culture amongst prescribers of antimicrobials. This latter study is using a mixed methods approach and aims to inform the development of an educational tool on antimicrobial stewardship for all prescribers.

During the year, work continued on the testing of rapid diagnostic tests for infections. These tests greatly reduce the timeframe for diagnosis of infections. In the hospital setting, data collection related to the use of the Accelerate system, for the diagnosis of septicaemia, was completed. Final analysis of the results will be undertaken in 2020/21. In Community Pharmacy, MOIC completed a report for Northern Pharmacies Trust which considered point of care testing for patients with cough, cold and flu-like symptoms to see if their infection is being caused by a particular type of bacteria.

A number of new pilots were started in the area of wound healing and a Wound Management Group to consider developments in this area was established. Specific projects tested the use of a sub-epidermal moisture scanner for use in early detection of pressure ulcers and the use of a new dressing to prevent infection developing following caesarean section births.

The team at MOIC are working with a QUB spin out company (Continga Limited) to trial a novel system for improving medicines adherence in those with respiratory diseases (e.g., asthma, TB). Using the system, clinicians can observe their patients as they use inhaled medication with a view to improving how such devices are used. At this stage, governance arrangements are being established to allow a pilot of the system in the Belfast Health and Social Care Trust.

Build a culture of partnership and collaboration

MOIC continues to work with a range of collaborators from across the world. Activity includes:

- Collaborating in order to apply for large funding grants.
- Attending conferences and events in order to promote MOIC.
- Contributing to the organisation of major conferences.
- Organising a successful hosting programme in Northern Ireland.

During 2018/19 year, MOIC collaborated with colleagues in Scotland and Ireland in order to submit a funding application to the Interreg programme. Interreg is a series of programmes to stimulate cooperation between regions in the European Union, funded by the European Regional



Development Fund. This application was successful and a total of €3.5million was awarded (€915K for MOIC). The funding obtained will allow a trial of pharmacy led medicines reviews in all three jurisdictions. In Northern Ireland, these reviews will occur in the hospital setting. In the other jurisdictions, the reviews will happen in GP surgeries. The kick-off meeting for this project was held in Edinburgh in October 2019.

A major funding bid was submitted to the EU under the Smart and Healthy Living at Home (Horizon 2020) call in November 2018. This bid was led by Professor MacLachlan, Director of the Assisted Living and Learning (ALL) Institute in Maynooth, and was from a collaborative of 36 partners. This bid was also successful with a total of €21 million being awarded. Of this €572K was awarded to the MOIC. The kick-off meeting for this project was held in Maynooth in November 2019.

In November 2019, MOIC co-hosted the first Medicines Safety Conference for Northern Ireland. The event was held in Belfast and focussed on the WHO Global Safety Challenge for Medicines Safety. Under this challenge, countries are tasked with reducing the incidence of medicines related harm by 50% by 2023. The event attracted some 150 delegates and was oversubscribed. In addition to key note addresses, there were 18 oral presentations at satellite sessions and 40 poster presentations.

Linked to the WHO global safety challenge, MOIC continues to work with the International Healthcare Institute (IHI). This includes contributing to the IHI Health Improvement Alliance Europe (HIAE) Eliminating Waste workgroup in relation to Medicines Optimisation. Finally the core group of the inter ecosystem Medicines Optimisation Working Group in the European Connected Health Alliance have identified a number of WHO global challenge champions. The group are producing a number of videos relevant to the challenge.

Following on from the first Celtic conference, which was held in Edinburgh in March 2019, the team at MOIC assisted in the organisation of the second Celtic Conference. The programme was to focus on the World Health Organisation Global Safety Challenge for Medicines Safety and was to be held in March 2020. The conference has been postponed until March 2021 due to the Coronavirus pandemic.

In March 2019, MOIC co-hosted a highly successful conference in Poland. Partners included Wroclaw Medical University, Polish Society of Clinical Pharmacology and Wroclaw Specialist Hospital and work is continuing to build upon this collaboration. The collaboration is hoping to establish a number of medicines optimisation pilots. It is anticipated that these will be rolled out across a number of locations in Poland. The potential to extend to other countries, e.g. Estonia, is also being explored.

In February 2020, the first joint clinical engagement conference was held between the Healthcare Finance Management Association (HFMA) and MOIC. The event was well attended and very positive feedback was received.

Under the hosting programme, visitors are welcomed to Northern Ireland for periods lasting between one day and five months to enable shared learning and knowledge translation. During 2019/20 these visits included;

- International pharmacists completing the QUB Masters in Advanced Clinical Pharmacy Practice undertook a two week residential programme to experience

hospital pharmacy practice in Northern Ireland. These visitors came from Qatar, United Arab Emirates and Kenya

- Two pharmacists visited during September 2019 and a further two visited during March 2020 under the Memorandum of Understanding with the Spanish Hospital Pharmacists Association.
- A student from Uppsala, Sweden, spent five months in Antrim Hospital (Jan 2019 – May 2019). During her time, she completed a clinical pharmacy project.
- Väinö Vähämäki, from Finland, arrived in Northern Ireland in March 2019 and stayed for two weeks. He visited as the first fellow under the Statement Implementation Learning Collaborative Centre, (SILCC) programme. The SILCC programme was established by the European Association of Hospital Pharmacists (EAHP) and it allows hospital pharmacists to visit hospitals in other countries to learn about pharmacy procedures.

Make a meaningful contribution to the Northern Ireland economy

MOIC has continued to attend meetings of the DH European Engagement Forum. Following a new application from DH for reference site status, NI continues to have its 4-star reference site status under the European Innovation partnership on Active and Healthy Aging (EIP-AHA). As such, MOIC work with the EIP-AHA polypharmacy/adherence working group as appropriate and Prof Scott represents NI on a task and finish group that aims to synergise the work of Reference sites and Action groups.

Work continues with a consortium from England, Sweden, Norway and Ireland. An application was submitted to the EU Horizon 2020 Research and Innovation Framework Programme by this group in January 2020. The grant was entitled Safe Medications Safe Patients.

An application submitted to the Engineering and Physical Sciences Research Council (EPSRC) with Queen's University Belfast regarding the development of sensors that detect a range of factors for wound healing was successful. Work on this grant is due to commence in April 2020.

MOIC continue to work with Invest NI and are an Invest NI Knowledge Partner.

MOIC response to the Covid-19

In the latter half of March 2020, the majority of normal business for MOIC was stood down and the expertise of the team was used to assist in the regional response to the pandemic. Staff were diverted to work on a number of key areas including:

- **Regional assessment PPE:** MOIC became the lead for technical assessment of offers of PPE regionally and commenced work regionally to ensure approved PPE is procured
- **Oxygen demand and supply:** work commenced to ensure regional oxygen supplies were sufficient to meet growing needs.

- **Ventilator consumable supplies:** the need to model the likely consumable needs for ventilators was identified and MOIC will be the lead in this area.
- **Critical drug supplies:** MOIC commenced work on modelling critical drugs needed for the pandemic.
- **Decontamination:** MOIC are part of a Regional Task and Finish group which will consider potential decontamination protocols for PPE and other items
- **New research & service development:** A number of new research proposals are being pursued including:
 - COMET research which uses routinely collected clinical data related to medicines and their effects on clinical outcome in patients with Covid-19.
 - A project using predictive analytics for mapping O2 use in hospitals
 - An application to permit the trial of the ACORRD APP which is designed to help health care professionals in hospital to triage, monitor and treat COVID-19 patients in hospital.

Financial Report 2019/20

The Medicines Optimisation and Innovation Centre has reported an overall surplus of £75k and has £580k of deferred income from commercial funding carried forward into 2019/20. An income and expenditure report is included in Annex B

Annex A

Papers & published abstracts

López-Lozano JM, Lawes T, Nebot C, Beyaert A, Bertrand X, Hocquet D, Aldeyab M, Scott M, Conlon-Bingham G, Farren D, Kardos G, Fésús A, Rodríguez-Baño J, Retamar P, Gonzalo-Jiménez N, Gould IM; THRESHOLDS study group. A nonlinear time-series analysis approach to identify thresholds in associations between population antibiotic use and rates of resistance. *Nat Microbiol.* (2019) 4: 1160–1172 doi: 10.1038/s41564-019-0410-0.

Odeh M, Scullin C, Fleming G, Scott MG, Horne R and McElnay JC. Ensuring continuity of patient care across the healthcare interface: Telephone follow-up post-hospitalization. *British Journal of Clinical Pharmacology* (2019) 85(3): 616-625

Burnett K, Callaghan L, McCarron P, Scott M, McKee P, et al. The Impact of Peripheral Venous Catheter Procedural Kits on Improving Clinical Outcomes in Hospitalised Patients. *Arch Phar & Pharmacol Res.* (2019) 1(5) APPR.MS.ID.000524. DOI: 10.33552/APPR.2019.01.000524.

Alnajjar M S, Aldeyab M A, Scott M G, Kearney M P, Fleming G, Gilmore F, Farren D, McElnay J C. Influence of primary care antibiotic prescribing on incidence rates of multidrug-resistant Gram-negative bacteria in hospitalised patients. *Infection.* doi: 10.1007/s15010-019-01305-6

Hogg A, Huey R, Scott M, Ferguson A. Informing Critical Care Drug Requirements in Response to the COVID-19 Pandemic. *European Journal of Hospital Pharmacy.* doi: 10-1136/ejpharm-2020-002368.

Roos SG, Sablerolles,F, Hogenhuis E F, Lafeber M , van de Loo BPA, Borgsteede SD, Boersma E, Versmissen J, van der Kuy HM, COMET Research team. COVID Medication (COMET) study: protocol for a cohort study. *European Journal of Hospital Pharmacy.* 27 pp 191-193.

Jassim Jirjees F, Jehad Al-Obaidi H, Sartaj M, Conlon-Bingham G, Farren D, Scott M, Gould I, López-Lozano J , Aldeyab M. Antibiotic use and resistance in hospitals: time-series analysis strategy for determining and prioritising interventions. *Hospital Pharmacy Europe.* July 2020. Issue 95 pp13-19 (<https://hospitalpharmacyeurope.com/news/reviews-research/antibiotic-use-and-resistance-in-hospitals-time-series-analysis-strategy-for-determining-and-prioritising-interventions/>)

Reports

MOIC. Primary Care and Community Together (PACT) Community Led Medicines Support Project Model. Submitted to Department of Health, December 2019

Community Pharmacy Cough, Cold and Flu Self-care Service. Report produced for Northern Pharmacies Ltd. March 2020



Presentations and posters

Authors	Title	Poster or Oral	Conference/Meeting
Scott, M & Friel, A	Medicines Optimisation In Research	Oral Presentation	CTRIC Conference, Derry, April 19
Fleming, G	The Medicines Optimisation Innovation Centre	Oral Presentation	The Guild of Healthcare Pharmacists NI Symposium, Antrim, May 19
Scott, M	Medicines Optimisation Innovation Centre (MOIC)	Oral Presentation	Nicon, Belfast, May 19
Scott, M	How to accelerate innovation through an evidenced based approach	Oral Presentation	All Ireland Diagnostic conference, Templepatrick, June 19
Scott, M	Medicines Optimisation Innovation Centre (MOIC)	Oral Presentation	Confed 19, Manchester, June 19
Scott, M	WHO –Third Global Patient Safety Challenge	Oral Presentation	ABPNI Meeting, Belfast, June 2019
Scott, M	Medicines Optimisation Innovation Centre (MOIC)	Oral Presentation	CPO England Fellows Visit, Belfast, July 2019
Gardiner S, Burnett K, McCarron P, Conlon-Bingham G, Farren D, Scott M, Aldeyab M	Modelling the impact of antibiotic use and infection control agents on the incidence of methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) incidence rates in hospital, informed by identifying antibiotic usage thresholds utilising non-linear time series analysis (TSA)	Oral Presentation	9 th All Ireland Pharmacy Healthcare Conference, Dundalk, October 2019
Shephard L, Fleming G, Gill D	Pharmacy department contribution to final year medical assistantship training in Northern Health and Social Care Trust (NHSCT)	Poster Presentation	9 th All Ireland Pharmacy Healthcare Conference, Dundalk, October 2019
Scott, M	Medicines Optimisation Innovation Centre (MOIC) Four years old –What has been achieved?	Oral Presentation	MOIC Showcase 4 years on, Antrim, October 2019
Scott, M	Workforce Planning: how do we futureproof to meet our population needs?	Oral Presentation	Pharmacy Management National Forum, London November 2019



Scott, M	Medicines optimisation in Northern Ireland	Oral Presentation	Medication use review in the era of digital care, Estonia, November 19
Hanley, J	NHSCT Pharmacy Discharge Follow Up Service	Oral Presentation	First Medicines Safety Conference, Belfast, November 2019
MOIC	Medicines Optimisation Innovation Centre (MOIC): National and International Partnership, Collaboration, Engagement	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
MOIC	Medicines Optimisation - Role of an Innovation Centre	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
MOIC	Writemed Electronic Medication Reconciliation System	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
MOIC	Medicines Optimisation in Northern Ireland: STEPSselect	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
MOIC	LAMPS: Live Automated Microbiology Pharmacy Surveillance System	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
MOIC	Hosting programmes at the Medicines Optimisation Innovation Centre (MOIC)	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
Zuzana Hovorkova Z, Linden Ashfield L, O'Boyle C	Monitoring of Patients' Prescribed Potassium Supplements	Poster Presentation	First Medicines Safety Conference, Belfast, November 2019
Scott, M	Medicines Optimisation Innovation Centre (MOIC)	Oral Presentation	HFMA & MOIC Clinical Engagement Conference, Belfast, February 19
Scott, M	What is MOIC?	Oral Presentation	Integrated Care Prototype Meeting Ballymena, March 2020

Annex B: Finance Report

Medicines Optimisation and Innovation Centre

Income and Expenditure position at 31st March 2020

	Deferred Income	Income from other Sources	DOH Funding	Total Income	Total Expenditure	Closing Balance
	£000's	£000's	£000's	£000's	£000's	£000's
Projects	214	366	635	1,215	-	1,215
Core			-	-	560	- 560
Total	214	366	635	1,215	560	655

Deferred Income

580

Surplus

75



Medicines Optimisation and Innovation Centre Income & Expenditure as at 31st March 2020				
	Project	Partners	As at 31st March 2020	Deferred Income
Deferred Income as at 1st April 2019				
HSC Innovation Fund - B94945			213,945	213,945
2019/20				
HSCB			562,788	
PHA	Research & Development Programme Manager		72,482	
External Funding				
MOIC022	Impact Agewell Social Prescribing - Pharmacy Prescribing	Impact Agewell, PACT (Pharmacy & Community Together), MOIC	25,000	25,000
	ARC Project	University of Oxford & East Anglia	16,354	16,354
B94545	Hosting		7,500	7,500
	SHAPES	EU Funding	238,865	238,865
	Speaker Fees		100	100
	Evaluation of Community Care Point of Testing		14,370	14,370
	Testing of SEM Device	B Bruian	5,000	5,000
MOIC020	Cost Effective Analysis of Rapid Susceptibility Testing	MOIC, Accelerate, BHSCT, NHSCT, SEHSCT	58,428	58,428
Total Income as at 31st March 2020			1,214,832	579,562
Expenditure as at 31st March 2020				
MOIC Costs				
	Staffing Costs		520,641	
	Non pay Costs		39,555	
Total Expenditure as at 31st March 2020			560,197	-
Surplus / Deficit		Surplus	654,635	579,562
	Deferred Income as at 31st March 2020		579,562	
	Net Surplus as at 31st March 2020		75,073	