Mapping Madness: HGIS and the analysis of Irish patient records

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Abstract. The Connaught District Lunatic Asylum (CDLA) opened at Ballinasloe, Co. Galway in 1833 as one of the first of a nationwide network of Irish District Asylums. Intended to serve the curable pauper lunatics of the counties of Mayo, Sligo, Leitrim, Galway, and Roscommon, the institution found itself at the heart of significant social, economic, and political change in the West of Ireland. From its opening, the asylum maintained a full and complex series of records that provide an exceptional level of detail on a cohort – the very poor and illiterate population of Connaught – who otherwise often lived and died unrecorded on the margins of Irish society. The CDLA admission records include information on age, sex, occupation, education, religion, marital status, places of origin and residence, migration, and family structures as well as the medical information, both mental and physical, required for treatment in the asylum.

This paper will examine the potential benefits of implementing spatial epidemiological methods into historical studies of mental illness. Using a database of patient records this paper will conduct a demographic analysis of a sample of the population of the CDLA. The paper will outline the process of transforming the data extracted from these records into visual maps using Historical GIS (HGIS). Using the geographic co-ordinates of these two locations, the unique patterns of movement of those that entered the asylum can be mapped using GIS. These maps enable the examination of the socio-spatial processes which affected the marginalised population of the asylum.[1]

Keywords: History, Irish Insanity, Digital Humanities, GIS, Demography.

Introduction

The history of psychiatry is often a history of loss: of status, of family, and of course, of mind. Patients 'lost themselves completely' when ill, behaving in

[1] The sources used in this paper come from the Connaught District Lunatic Asylum records, held at the National Archives of Ireland in Dublin. As the material is drawn from committal warrants of patients admitted in 1889, it falls outside of the '100 year rule' for accessing sensitive historic patient information in Ireland.

ways that set them apart from community and society. It is no coincidence that the original word for a psychiatrist was 'alienist', derived from the French term *médecin aliéniste,* a person who became responsible for the treatment of individuals who were separated both from society and themselves as a result of mental ill health. Patients were aliens in every sense of the word, as their delusions and strangeness of behaviour positioned them as unknown and unpredictable beings. Long-stay patients in asylums were in great danger of losing their connections to the outside world, as families visited infrequently, and in at least some cases, preferred to quietly deny their link with a person stigmatised by mental illness. This paper seeks to restore some of the lost connections between patients, their families, and the broader society from which they came by directly mapping the co-ordinates of their origin. This enables further veification of key demographic factors such as the patient's socieo-eceonic circumstances. Using spatial epidemiological methods, we seek to reconstruct the patient's non-asylum social world, and re-think the historiography of mental illness. Rather than focus on an individual experience of committal, HGIS supports cohort analysis that engages with the non-medical factors in admission, thereby situating the asylum population in the complex world of nineteenth century Ireland. It opens up the record body to a new form of analysis, with record linkage helping to track patients across a longer period of their life cycle. It permits large bodies of data to interact, facilitating the recreation of patient movement to and from institutional care, as well as the world of work. This fine-grained connection has enormous potential to deepen our understanding of patient life beyond the asylum, which has been largely invisible in the past.

The Asylum: reach and importance

The Connaught District Lunatic Asylum (CDLA) opened at Ballinasloe, Co. Galway in 1833 as one of the first of a nationwide network of Irish District Asylums. It was situated in an impoverished rural region in the west of Ireland, one that endured chronic underemployment, periodic food crises, and a growing pauper population for the entirety of the nineteenth century. The CDLA had been intended to serve only the curable pauper lunatics of the counties of Mayo, Sligo, Leitrim, Galway, and Roscommon, and to implement the optimistic development in mental health provision that was 'moral therapy'.[2] However, the institution rapidly found itself at the heart of significant social, economic, and political change in the West of Ireland. As Irish society came increasingly to

[2] Moral Therapy refers to the belief that if mentally ill patients were treated gently and permitted to live in the manner to which they had been accustomed at home, they would recover their senses. Although a far more humane principle than the earlier, largely custodial, regime that preceded it, it proved expensive and less successful than had been hoped.

accept and exploit such institutions, admissions to the asylum were often driven by considerations that had little to do with mental ill-health.[3]

Although Michel Foucault described the eighteenth century as a period of the so-called 'Great Confinement', it was in fact the nineteenth that saw the sharpest rise in admissions to the national system of institutions for the care of the mentally ill in Ireland and Britain. From 1800, both countries established a regional network of lunatic asylums that grew exponentially, to address what was perceived to be the growing problem of mental ill-health. The development was part of an increasing centralisation of state power that is mirrored in the growth of workhouses (established under the Poor Law), prisons, specialist institutions for the care of the intellectually disabled, and a general hospital system. The second half of the nineteenth century also saw a significant rise in the numbers of general hospitals, and substantive improvements in public health that included compulsory vaccinations, slum clearance, public sewage systems, and care for the elderly and infirm.

These developments were intimately associated with a broader European concern with what was known as 'the national stock'. In an era of 'land grabs' in Africa, as well as increasing tensions between European Imperial powers, governments saw a tightly regulated health and welfare system as a means of ensuring a healthy domestic and overseas army to take and hold territories, as well as producing replacement populations. Mental illness, especially on the scale that appeared to be evident in the British Isles, was a direct threat to such an ambitious global positioning. Throughout the nineteenth-century, the British government became increasingly concerned with what was regarded as an apparently inexorable rise in mental illness in Ireland in particular which saw institutionalized patient numbers rise to over 21,000 by 1900: there were an additional 9,000 lunatics in Workhouses (mostly inmates with dementia), giving a total of over 30,000 individuals in institutional care designated insane. This growth is all the more extraordinary when placed against a sharp population decline in Ireland in the second half of the nineteenth century, from 8.2 million in 1845, to 4.4 million in 1901. The CDLA opened in 1833, to serve the entire population of the province of Connaught. The provincial population stood at almost 1.5 million in this period, so the asylum's 150 bed provision was by any standard a modest provision. Within a year of its opening, it housed 300 inpatients, an inexorable rise that continued for over 100 years until its peak of over 2,000 residential inmates in the 1950s. The asylum shaped, and was itself shaped by, local and national politics, becoming a crucial source of not only

[3] This paper uses original terminology for mental illness, as it appears in the records. Although jarring to the modern ear, the terms were accepted medical discourse in this period, and their usage in this paper protects the integrity of the historic sources.

medical treatment but employment, therapy, and refuge for a vulnerable population. In the 1860s, the catchment area for the CDLA reduced from the original five counties of the province of Connaught to the sole counties of Galway and Roscommon. Despite this shrinkage, the asylum population maintained a steady increase, apparently confirming the government's belief that the Irish character was inherently unstable.

But how to evidence this ethnically-based belief? The answer lay in a sophisticated data-gathering exercise that was conducted at every moment in the asylum admission, treatment, and discharge process. Irish insanity was uniquely regulated by a piece of legislation that created a dangerously destructive association between mental ill health and criminality, through the 1838 enactment of the Dangerous Lunatics Act. This extraordinarily liberal (or more accurately repressive) piece of legislation operated to eliminate even the basic civil rights of the nineteenth century, permitting the arrest and imprisonment of any individual accused of 'dangerous insanity'. Intended for emergency use only, it became the default means of committal of the vast majority of patients to the CDLA throughout the century, and well into the twenty-first.[4] The Act permitted any person to make an accusation of dangerous insanity against another, without corroborating evidence or witnesses. The accused was arrested, brought before two Justices of the Peace, who without benefit of any medical expertise determined if the person before them was indeed a dangerous lunatic: in the vast majority of cases they agreed that this was the case. The unfortunate accused was then transported to gaol, from where after a period of detention (from a matter of days, to a month or more) they were transferred under armed constabulary escort to the nearest District Asylum. The Act required that the asylum accept every person brought to them under the DLA, even in those cases where non-medical factors had precipitated the arrest. There were frequent cases at the Ballinasloe Asylum where the accompanying constables told the asylum Physician that a dispute over land or other resources lay at the heart of an accusation of insanity, but the Public Order imperative of the DLA overrode all other considerations. The Act was uniquely open to exploitation, and proved an irresistible temptation to relatives who sought to rapidly admit a family member, whatever the primary motivation.[5]

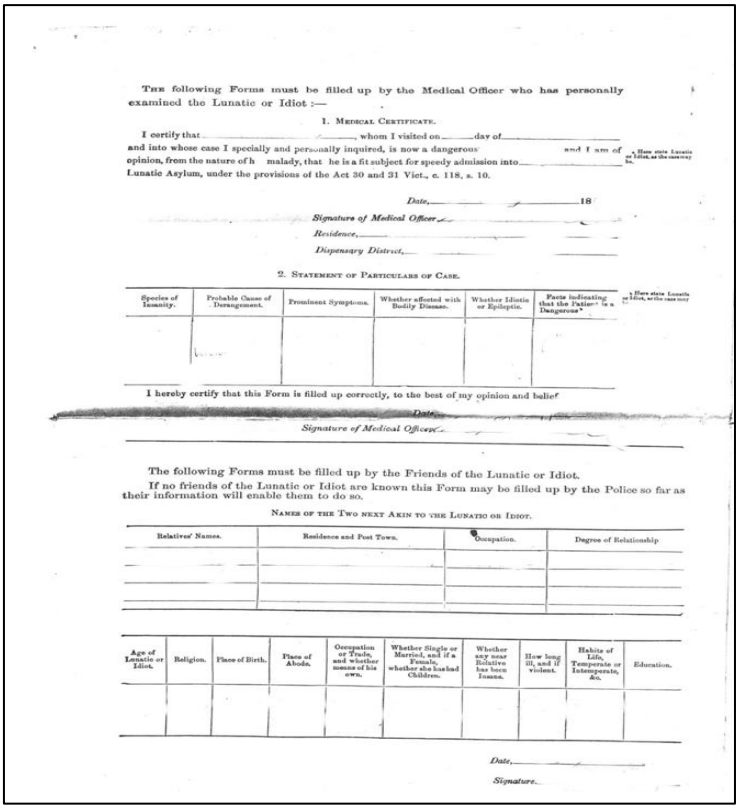
Database Creation and Demographic Analysis

To date there have been few studies conducted which analyse spatial patterns relating to mental health in the present and even fewer analysing these patterns

[4] The DLA accounted for over 75% of all male admissions in the early 1890s, despite being a provision was intended for exceptional and emergency use.

[5] Because the DLA guaranteed admission, it was deliberately used by families to access immediate treatment for their relatives, in the hope of a rapid cure and discharge. This usage however led to gross overcrowding of all of the District Asylums, and a deterioration in care.

in the past. Folasade Lyun has argued that the need to conduct psychiatric epidemiologic studies arises from the correlation between mental illness and socio-cultural environmental factors. The analysis of historical medical records using digital methods provides a unique set of challenges, particularly in contrast to the analysis of civil records from the same period. Civil records such as birth, marriage and death records are standardly uniform in nature and specific guidelines were frequently used for the record's initial population. The records that were utilised for this research contain a wealth of qualitative and quantitative information as is visible in **Figure 1.**



THE following Forms must be filled up by the Medical Officer who has personally examined the Lunatic or Idiot :—

1. MEDICAL CERTIFICATE.

I certify that _____, whom I visited on _____ day of _____ and into whose case I specially and personally inquired, is now a dangerous _____ and I am of opinion, from the nature of h malady, that he is a fit subject for speedy admission into _____ Lunatic Asylum, under the provisions of the Act 30 and 31 Vict., c. 118, s. 10.

* Here state Lunatic or Idiot, as the case may be.

Date, _____ 18

Signature of Medical Officer

Residence, _____

Dispensary District, _____

2. STATEMENT OF PARTICULARS OF CASE.

Species of Insanity.	Probable Cause of Derangement.	Prominent Symptoms.	Whether affected with Bodily Disease.	Whether Idiotic or Epileptic.	Facts indicating that the Patient is a Dangerous*

I hereby certify that this Form is filled up correctly, to the best of my opinion and belief

Date, _____

Signature of Medical Officer

The following Forms must be filled up by the Friends of the Lunatic or Idiot.

If no friends of the Lunatic or Idiot are known this Form may be filled up by the Police so far as their information will enable them to do so.

NAMES OF THE TWO NEXT AKIN TO THE LUNATIC OR IDIOT.

Relatives' Names.	Residence and Post Town.	Occupation.	Degree of Relationship

Age of Lunatic or Idiot.	Religion.	Place of Birth.	Place of Abode.	Occupation or Trade, and whether means of his own.	Whether Single or Married, and if a Female, whether she has had Children.	Whether any near Relative has been Insane.	How long ill, and if violent.	Habits of Life, Temperate or Intemperate, &c.	Education.

Date, _____

Signature

Fig. 1. The second page of the Committal Warrant of a Dangerous Lunatic or a Dangerous Idiot.

The information present on .pdf copies of these records were manually input into an excel database which had been broken down into fifty individual categories. These categories were designed to allow the data to be analysed at a granular level. The process of creating the database initially centred around the extraction of key demographic factors. These include the patient's age, sex, residence, and occupation. Several categories were included which indicated the

nature of the patient's conditions such as 'species of insanity' and 'probable cause of derangement'. The inclusion of the patient's 'friends' or family members was intended to aid the mapping process and improved the ability to link the patient records with additional datasets. In a number of cases, it was possible to link the patient's original residence to the records of the census in 1901. The inclusion of family members allowed for the potential to confirm that the household was correct. A 'census' category was included in the database for this purpose. This category included a link which could be easily used to refer back to the census registers on the National Archives of Ireland website. The census records are vitally important to demographic studies of this period as they can provide a strong indication of a person's class and background.

Table 1: All categories present in project database.`

Date	Patient Name	Age	Male or Female	Danger-ous	Religion	Place of Birth
Means	Marital Status	No. of Children	Whether any near Relative had been Insane	Length of Illness Years	Length of Illness Months	Length of Ill-ness Days
Proba-ble Cause	Education	Species of In-sanity	Temper-ate or In-temperate etc.	Promi-nent Symp-toms 1	Promi-nent Symp-toms 2	Whether Af-fected with Bodily Disease
Resi-dence and Post Town 1	Occupa-tion	Degree of Rela-tionship 1	Place of Abode	Resi-dence and Post Town 2	Relative's Name	Degree of Rela-tionship 2
County	If Violent	Habits of Life	Whether Idiot or Epileptic	Addi-tional Info	Medical Officer	Facts Indicating that the Patient is Dangerous

Difficulties with uniformity and the varying nature of cases created a number of challenges throughout this process. The database is required to constantly evolve throughout this period of transcription to accommodate the needs of the researcher and to include new elements that appear when analysing the records. During the initial process of transcription, the categories were populated using the exact text present. There were no generalised standards for the population of these records. As a result, the contents of the records had a variety of linguistic variations for a common term, dependent on the medical officer's preferences. Once the database was completed these terms were standardised. This

involved deviation from the exact text for the purpose of analysis in certain categories. For example, in the 'probable cause' column of the database, there was a high degree of variation in language used to describe an unknown cause of insanity. These included 'not known', 'cannot assign cause' and 'no assignable cause'. To aid with the analysis of the data these were all reclassified as 'unknown'. Similarly, there were issues with the education category. In the majority of cases patients were described as having the ability to 'read and write' or that they had 'none'. In certain cases, this category was used describe the patient's level of education. Terms such as 'fair' and 'average' were used. For the purpose of this research all patients with some degree of education were classified as literate and those without education were classified as illiterate.
The co-ordinates of the CDLA were input into 'AsyLat' and 'AsyLong' categories. The inclusion of this category creates the ability to understand the distance travelled by patients as well as the expansive reach of the asylum. The patient's original residence was input into the 'OriginLat' and 'OriginLong' categories which were required for the data to be processed correctly by ArcGis. The co-ordinates of the original residence for all thirty-three were then added to the additional 'decimalLatitude' and 'decimalLongitude' categories in the excel database.

The analysis of this database can provide a wealth of information regarding the demographic of asylum patients in this period. This pilot study examined thirty-three patients which had been admitted to the asylum in June and July 1889 - three of these patients were deemed to be 'dangerous lunatics' as defined under the Lunacy (Ireland) Act 1838[6]. This act saw a major overhaul to the legislation in place and introduced new classifications for patients who were deemed to be dangerous. This act stated that an individual who was considered to be a 'dangerous lunatic' could be committed to an asylum indefinitely by two justices of peace. The remaining two were committed to the asylum as pauper lunatics. There were no private patients present in this dataset. Three of the primary indicators of the patient's class and background are religion, occupation, and literacy levels. The majority of the patients admitted to the CDLA were from poor backgrounds. All thirty-three patients admitted to the institution were Roman Catholic. As **Table 2** shows, over 80 per cent of the patients admitted in this period were employed as or dependents of a farmer, a labourer, or a person of no means. The analysis of this data provides strong evidence indicating a prevalence of admissions amongst the poor, as one would expect in a pauper asylum. However, the data also shows that individuals of relative means – farmers, landowners, and tradesmen – declared themselves paupers to avoid the imposition of fees for their care:

[6] All cases taken from committal warrants for patients admitted to the Connaught District Lunatic Asylum from June-July, 1889.

Occupation of patients admitted to the CDLA, June-July 1899	
Occupation (or dependent of)	**No. of patients**
Farmer	10
Labourer	10
None	7
Craner	1
Herdman	1
Landholder	1
Miller	1
Saddler	1
Shoemaker	1

Table 2: Patient Occupations from June-July Committal Warrants.

This information can be used in conjunction with further demographic analysis to gain an understanding of the general profile of the asylum's population. **Table 3** and **Figure 2** show the age of admission to the asylum. The categories were chosen to create four individual demographic categories that were evenly divided. These categories begin at the age of 15 which was observed as the lowest age admission. The highest age of admission was 69 but 74 was chosen to enable the inclusion of equal incremental demographic categories. It is notable that the patients admitted to the asylum were of a younger demographic. Each demographic shows a steady decline. It is possible that this coincides with population decline of the period, further analysis using these methods in conjunction with civil records may be able to show a potential correlation in these trends.

Age Group	Number of Patients
15-29	12
30-44	10
45-59	7
60-74	4

Table 3: **Age demographic of patients admitted to the CDLA, June-July 1899**

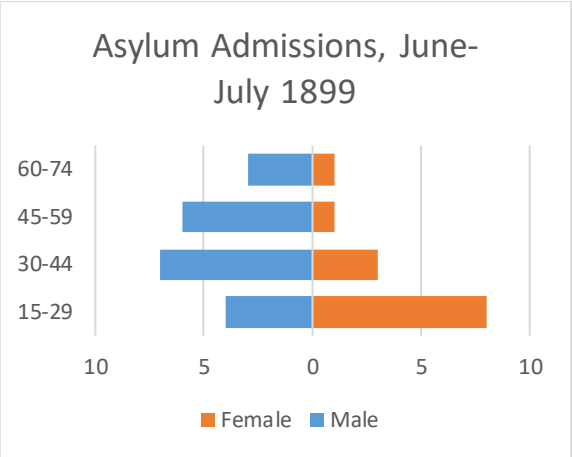


Fig. 2: Female/Male Admissions, June/July 1899

Mapping Process

The contemporary maps mentioned earlier also played a large role in this aspect of the mapping process. The modern map that was referenced was the Open Street Map (OSM) Humanitarian Model. The older maps Ordnance Survey of Ireland (OSI) were overlaid onto the OSM. The OSI maps used for this project were created in Ireland between 1892 and 1911. This iteration was used as the period of research fell within this time period, meaning very few changes in the landscape would have occurred. This mapping process allows for historic villages and townlands to be mapped accurately, even if they no longer exist. This overlay is visible in **Figure 3** below.

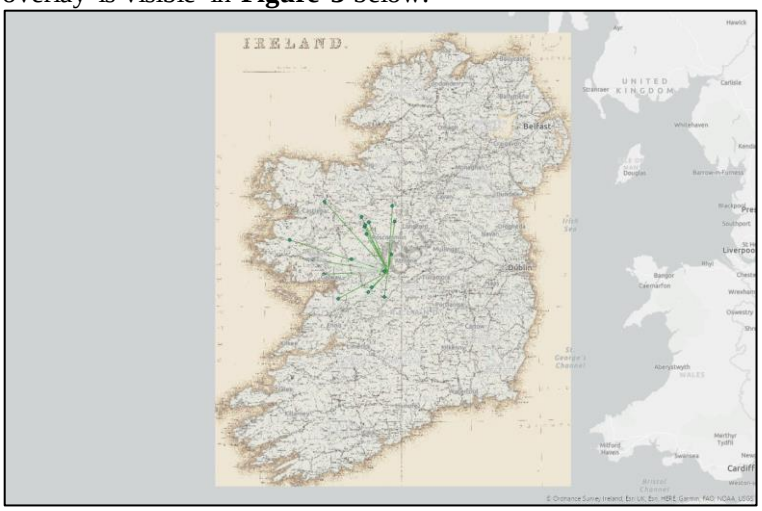


Fig. 3. Complete map of Ireland overlaid with Historical 25 inch

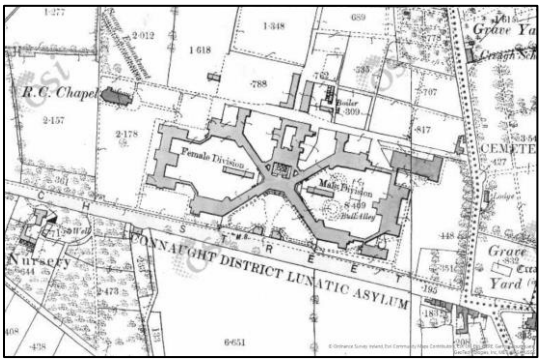


Fig. 4. The CDLA as it appears on the Historic 25 Inch OS Map

Programmes such as ArcGIS have analysis tools which allow for the calculation of unique geographic factors that provide further insights into the expansive influence of the asylum. A key spatial factor that was derived using these methods was the distance from the asylum to the patient's original residence. The co-ordinates of the CDLA were input as additional columns in the excel database. This allows a visualisation of the distance from the patient's origin to the CDLA as seen in **Figure 5** below.

Each of these new databases were then formatted correctly with the appropriate titles to be inputted into ArcGis. Each was exported from Microsoft excel as a .csv file and inputted into ArcGis. This allows the point that is generated in ArcGIS to retain the all of the original data in the excel and associate it with the individual point. The GIS programme itself can be seen as an additional database used to process this information. GIS is better viewed as a type of database than exclusively a mapping tool. What makes this database unique is that each item of data has an allocation stored. The data is then presented in a variety of chosen formats. This transforms the data into an electronic tool that allows the researcher to instantly answer a variety of research questions relating to the topic. Following the input into GIS the data was transformed from the initial data to new formats. The final representation consists of two types of data. The first is the attribute data which was presented previously as quantitative data in the form of a chart or a graph. The next is spatial data which locates the data using a line, a pixel or a polygon. This is known as vector data and is used to represent discrete features in GIS. The pixels which are known as raster data represent continuous surfaces. Attribute data represents the 'what' when analysing the data whilst the spatial data represents the 'where'. Using the data derived from the admission records in conjunction with maps emphasises the great extent to which mental illness was primarily a rural issue or indeed the reprimanding of the patient was to be more likely.

The utilisation of ArcGIS in combination with classical historical research methods can address several issues that cannot be resolved with the strict use of empirical data or qualitve analysis alone. The blending of these methods enables the ability to contextualise and frame the data in unique yet understandable manner. The human organisation of space often creates methodological problems when solely utilising GIS outputs as it is not always uniform and requires contextualisation. The output of the GIS databases such as these have the potential to be an invaluable source for historians. However, like all sources the GIS output cannot be taken for granted. While the GIS database is accurate for the most part, there is little way to be certain that the original source has a 100 per cent accuracy rate and thus so leaves the GIS output open to similar interrogation.

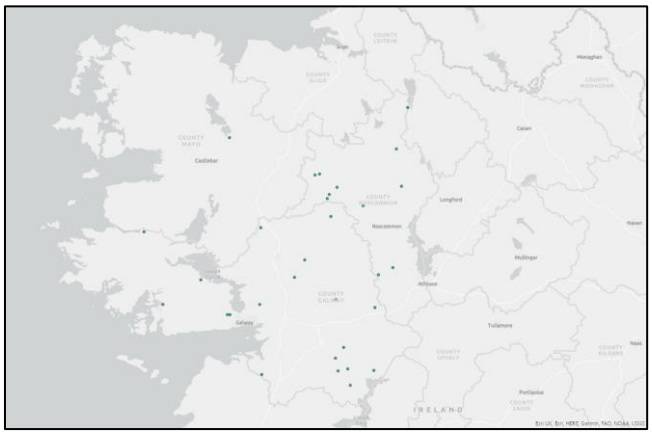


Fig. 5. Map displaying original residences of patients admitted to the CDLA.

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Fig. 6. Map showing distance between the CDLA and patient's original residence.

The visualisation of this data shows the influence of the asylum in Connacht. In July 1899 admissions arrived to the asylum from three counties. All of the admissions were rural, no patients were admitted from Galway city. Once this distance was input it was possible to use on of the spatial processing tools in ArcGIS to calculate the exact distance. Once this has been calculated it is possible to export the new data to an excel file to conduct further analysis. The initial findings of this to process show that the distance of admissions ranged from 3 kilometres to 102 kilometres as visualised in **Figure 7**. The average patient was calculated to have resided 50 kilometres from the institution. The ranges included in Table 4 were chosen to ensure a clear visualisation of the demographic distribution while incorporating the minimum and maximum distance from which patients were admitted to the asylum.

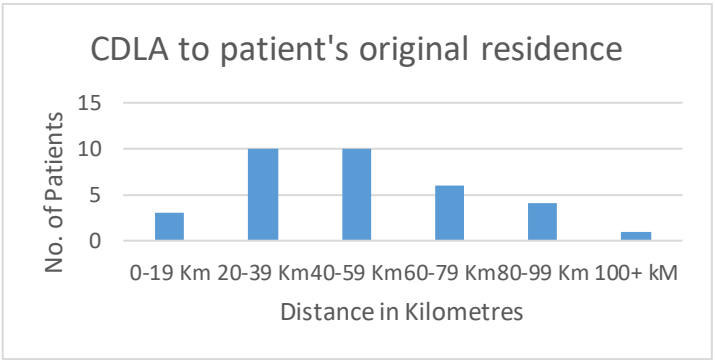

Fig. 7: Distance to CDLA from Residence

Initial Findings:

One of the striking findings in this sample is the lack of admissions from Galway city. This is highly unusual: there were relatively few large urban areas in the counties of Galway and Roscommon in this period, and Galway was the county capital. Moreover, male admissions to the Ballinasloe asylum were most often arrested some distance from their homes, and accused of offering violence to strangers. Women were on the other hand more likely to be admitted from their homes, as a result of alleged suicidal ideation or violence towards immediate family members. Thus, men were frequently arrested in the city of Galway, where they had been observed behaving peculiarly in public, or had become embroiled in arguments in shops and at marts and fairs in the city. However, their place of residence was frequently recorded as elsewhere in the county, even when they had been living in the city for some time. This may be seen in the case of the 26-year-old Patrick T., arrested in Galway on June 8th.[7] Described as resident in the city where he worked as a labourer, he was arrested after he 'unlawfully threatened to kill his Father' following an altercation in Shop Street in the heart of the city. The magistrate who accepted the medical evidence that Patrick suffered from Mania and represented a danger to the public put his place of residence as Ahascragh, Co. Galway, that being the home of his father who swore evidence against him. This is not merely a confusion in terms of origin, but a deliberate elision of residence to avoid liability for Patrick's support. Irish District Asylums were intended for the care of pauper lunatics, and each city and county paid for the support of inmates through taxation. It was therefore very important to correctly identify a patient's place of residence in order to ensure that the appropriate Grand Jury, and after 1898, County or City Council, was charged for their upkeep.[8] By recording Patrick's place of residence as Ahascragh – some 45 miles east of Galway – and not the city, Galway City Council could refuse to pay for his upkeep, and that expense fell on the County of Galway instead. This was a constant battle between local power bases, and for almost 20 years after the asylum's opening Galway city had refused to pay for the support of city-resident patients. In a philosophical interpretation of the regulations that echoed the dual-state of Schrödinger's cat, the city fathers argued that as Galway city was in the County of Galway, all city residents were therefore county residents, and appropriate charges on the

[7] To preserve patient anonymity, we use a standard historical methodology of identification in this paper of the individual's first name, and first letter of their surname. The age of the patient is also provided, as it is important in establishing familial relationships and relative vulnerability to committal.

[8] Grand Juries were the earliest local authorities in Ireland (replaced in 1898 by County and City Councils). Responsible for local expenditure, they were largely staffed by local landowners who were also the key ratepayers, and who therefore tended towards the parsimonious when funding asylums and workhouses.

county Grand Juries. It is when admissions are viewed through the ArcGIS programme that the absence of city patients becomes clear, and tensions between regions that are hidden in the record body are suddenly illuminated. Mapping in this case reveals lacunae, and offers a visual insight into the non-medical imperatives that were part of asylum admissions.

The mapping process used in this pilot also deepens our understanding of the unofficial adaptations made by asylum staff and the authorities to accommodate patients. By 1899, the catchment area of the CDLA had shrunk to two counties: Galway and Roscommon. However, in July, a patient from Co. Mayo was transported over a very considerable distance to Ballinasloe, despite not being legally entitled to be sent there. An argument was made for transportation on the grounds that the patient had originally been treated at Ballinasloe, and a full recovery was deemed more likely if they were permitted to return to a familiar therapeutic environment. A newly-built asylum had opened in 1866 at Castlebar, Co. Mayo, to serve individuals from Mayo, Leitrim, and Sligo. Long-stay patients at the CDLA who had originated from those counties were transferred *en masse*, and despite the overcrowded nature of the Galway asylum, against the Board of Guardian's protests. The dynamics of asylum operations, and the status as well as financial boost that such an institution conferred in an impoverished region such as Co. Galway, meant that each Board argued strenuously for funds to expand their own institutions, and prevent the construction of new asylums that would divert patients to new locales. Using the mapping software to include areas not just beyond the asylum's catchment area, but further afield, will considerably enhance the existing historiography of migration as well as mental illness. For example, on June 20th, Catherine R was admitted for breaking furniture in her brother's house. Although recorded on her committal warrant as resident in Liss, Co. Galway, she was in fact newly returned from America, from where she had been 'sent home…as a dangerous lunatic.' The traffic of patients from Scotland, England, Wales, and the United States is a little-explored element in psychiatric history, but a fascinating one.

Examining the archive using locale as a prism alters our view of the admissions process. It also enriches our understanding of the precipitating factors in admissions. Each warrant includes information on the alleged lunatic action that brought the person to official attention, and a close examination brings gendered difference into sharper focus. There were 20 male patients and 13 female patients admitted to the asylum in June 1899. The June admissions for show distinct differences between male and female admissions that reflect the limited social spheres women moved in, relative to men. On June 8th, for example, Maria M was accused of attempting 'to commit suicide by drowning herself and did assault [her father] by biting him' at their home. Kate L, also admitted

on the 8th, 'did unlawfully assault [her father] and break the windows and furniture of his house', the 'same being a crime for which she would be liable to be indicted.' On June 12th, it was alleged that Catherine G 'occasionally becomes violent and pelts stones at her Father and others; she turned her Father out of his house at Cloonmullen, and she is now living there alone, to the danger of setting herself and the House on fire.' All of the women admitted in June were alleged to have attacked close family members within their shared home. The men, on the contrary, were more often accused of travelling distances from the domestic realm, and offering danger to non-family members as in the case of Michael C, who 'on several occasions leaves his residence and goes about the country, returning at night…[he] threatened violence towards his brothers and the Police.' Similarly, Peter J was admitted in May, discharged, and returned in June because 'he did…cruelly ill-use a mare his own property by running her though soft places and jumping her over walls. He also did at same place strip off all his clothing, except his shirt, went on top of the house, and put his legs down through the chimney of same, and afterwards jumped down off the gable, and [the informant] is in fear of his life.' Pinpointing the location of the alleged acts of insanity provides a nuanced picture of Irish rural society, and the perceptions of when mental illness was perceived as an accepted (if feared) part of the human condition, and when it became a matter of public order.

Conclusion

The frameworks and methodologies used throughout this study offer templates to conduct an expanded study on asylum admissions in the CDLA as well as other Irish asylums, and has the ability to broaden our current understanding of the position of the asylum system in society in the early twentieth century Ireland. This approach has the potential to significant enhance the existing body of knowledge in relation to mental health histories, by facilitating a sophisticated understanding of the physical movements of individuals in and out of the institution, and thereby illuminating their engagements with family, community, and systems of state support and control. Most analysis of asylum records to date has focused on the patient experience inside the institution, or the operation of the judico-medical establishment. Combining historical analysis with digital interrogation of the records produces a complex picture of nineteenth-century life, demonstrating the intersectionality of class, gender, migration, and modernity

There are clear benefits to using digital methods for the analysis of historical asylum records but it must be noted that the figures derived using these tools cannot guarantee complete accuracy due to a number of issues. At first, the original records may appear limited, once these are interrogated, they can reveal

a wealth of information pertaining to an individual. A demographic analysis of these records can reveal the social class of a person. When used in conjunction with the census data it can reveal additional information regarding their family and their lives.

The study of asylum admissions can broaden the understanding of the landscape of the institution's expansive influence. This shows how new methods of analysis can be of benefit to historical research, particularly when these are used in conjunction with digital platforms such as GIS. Aside the capability to display data in a clean and accessible format, they can reveal a wealth of other information. Throughout this study it has been key to understand the spatial influence of the CDLA in this period. The use of GIS enabled the mapping of these patients' origins and with further expansion of the methods used in this research these districts could be specified to a broader and more accurate degree. The application of spatial analysis has proven to be beneficial throughout this study, showing how geography and one's mental well-being are evidently deeply intertwined. The use of the newest technology animates the oldest records, allowing us a nuanced insight into the lives and experiences of the asylum inmates and their communities.

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