

UCC Library and UCC researchers have made this item openly available. Please let us know how this has helped you. Thanks!

Title	An interrupted time-series analysis of the impact of emergency department reconfiguration on regional emergency department trolley numbers in Ireland from 2005 to 2015				
Author(s)	Lynch, Brenda; Browne, John; Buckley, Claire Mary; Healy, Orla; Corcoran, Paul; Fitzgerald, Anthony P.				
Publication date	2019-09-17				
Original citation	Lynch, B., Browne, J., Buckley, C. M., Healy, O., Corcoran, P. and Fitzgerald, A. P. (2019) 'An interrupted time-series analysis of the impact of emergency department reconfiguration on regional emergency department trolley numbers in Ireland from 2005 to 2015', BMJ Open, 9(9), e029261. (13pp.) DOI: 10.1136/bmjopen-2019-029261				
Type of publication	Article (peer-reviewed)				
Link to publisher's version	https://bmjopen.bmj.com/content/9/9/e029261 http://dx.doi.org/10.1136/bmjopen-2019-029261 Access to the full text of the published version may require a subscription.				
Rights	© Author(s) (or their employer(s)) 2019. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ. This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.				
Item downloaded from	http://hdl.handle.net/10468/8813				

Downloaded on 2019-12-02T14:00:51Z



Supplementary Material

Appendix 1

Figure 1A. Emergency attendances, emergency admissions and emergency department trolleys in the West 2005/2006-2015

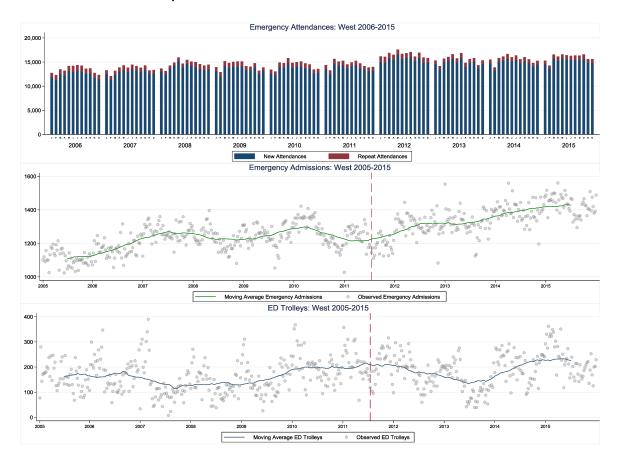


Figure 1B. Emergency attendances, emergency admissions and emergency department trolleys in the North-East 2005/2006-2015



Figure 1C. Emergency attendances, emergency admissions and emergency department trolleys in the South 2005/2006-2015

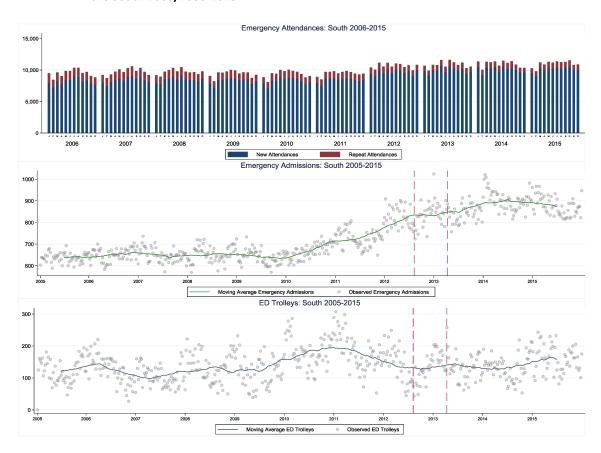
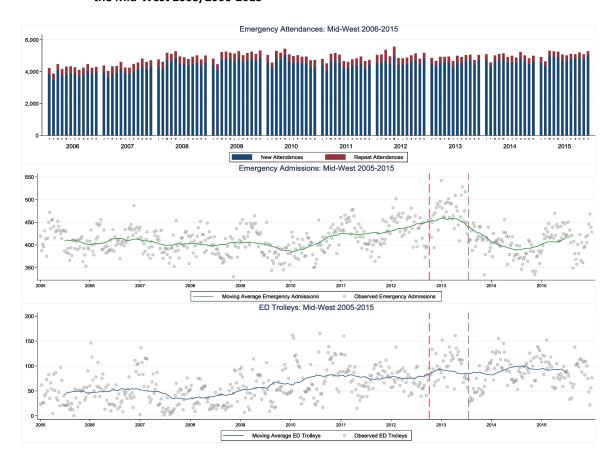


Figure 1D. Emergency attendances, emergency admissions and emergency department trolleys in the Mid-West 2005/2006-2015



Appendix 2

Table 2A. Annual in-patient beds 2006-2015

	West	North -East	South	Mid-West
2005	N/A	NA	N/A	N/A
2006	1670	766	1002	513
2007	1780	770	1112	513
2008	1737	748	1078	513
2009	1794	732	965	474
2010	1760	704	942	458
2011	1810	682	976	479
2012	1661	649	908	458
2013	1631	655	931	423
2014	1684	651	955	354
2015	1682	645	947	357
TOTAL	1721	700	982	454

Table 2B. Annual weekly average emergency admissions 2005-2015

	West	North East	South	Mid-West
2005	1109	547	638	410
2006	1171	551	651	415
2007	1271	556	649	399
2008	1224	538	654	399
2009	1245	593	639	400
2010	1269	615	670	403
2011	1222	554	728	424
2012	1317	706	831	446
2013	1323	737	846	443
2014	1395	735	906	389
2015	1428	715	874	417
TOTAL	1270	622	735	413

Table 2C. Annual weekly average ED trolley numbers

	West	North-East	South	Mid-West
2005	160	99	119	42
2006	173	138	127	52
2007	132	132	106	45
2008	133	125	134	40
2009	150	134	121	56
2010	197	141	186	81
2011	212	264	179	77
2012	181	196	132	76
2013	135	111	141	86
2014	207	135	134	99
2015	226	166	158	87
TOTAL	173	149	140	67

Appendix 3

Table 3A. Distribution of patients from the county of ED reconfiguration to remaining regional hospitals with EDs in the West

Patients from Roscommon	2010	2011	2012
	(n=5,315)	(n=3,777)	(n=5,044)
Letterkenny General Hospital (%)	2 (<1%)	1 (<1%)	3 (<1%)
Mayo General Hospital (%)	239 (5%)	311 (8%)	575 (11%)
Portiuncula Hospital (%)	884 (16%)	1,137 (30%)	1,586 (31%)
Roscommon County Hospital (%)	2,185 (41%)	78 (2%)	513 (10%)
ED reconfiguration July 2011			
Sligo Regional Hospital (%)	753 (14%)	846 (23%)	1,042 (21%)
University Hospital Galway (%)	889 (17%)	954 (25%)	864 (18%)
Hospitals outside the West (%)	363 (7%)	450 (12%)	461 (9%)

Table 3B. Distribution of patients from the county of ED reconfiguration to remaining regional hospitals with EDs in the North-East

Patients from Monaghan	2008	2009	2010	2011	2012
	(n= 5,574)	(n= 5,493)	(n= 5,429)	(n=5,054)	(n=5,724)
Cavan General Hospital (%)	1,497 (27%)	2,390 (44%)	3,455 (64%)	3,281 (65%)	3,464 (61%)
Louth County Hospital (%)	538 (10%)	502 (9%)	311 (6%)	0 (<1%)	0 (<1%)
ED reconfigured June 2010					
Monaghan General Hospital (%)	2,180 (39%)	1,257 (23%)	0 (<1%)	0 (<1%)	0 (<1%)
ED reconfigured July 2009					
Our Lady's of Lourdes, Drogheda (%)	862 (15%)	772 (14%)	1,097 (20%)	1,157 (23%)	1,696 (30%)
Our Lady's, Navan (%)	15 (<1%)	36 (<1%)	48 (<1%)	40 (<1%)	23 (<1%)
Hospitals outside the North-East (%)	482 (9%)	536 (10%)	518 (10%)	576 (11%)	541 (9%)
	<u> </u>		<u> </u>	1	
Patients from Louth	2008	2009	2010	2011	2012
	(n=9,862)	(n=9,524)	(n=9,555)	(n=8,144)	(n=11,725)
Cavan General Hospital (%)	14 (<1%)	18 (<1%)	11 (<1%)	19 (<1%)	24 (<1%)
Louth County Hospital (%)	3,447 (35%)	3,229 (34%)	1,343 (14%)	1 (<1%)	0 (<1%)
ED reconfigured June 2010					
Monaghan General Hospital (%)	10 (<1%)	4 (0%)	0 (<1%)	0 (<1%)	0 (<1%)
ED reconfigured July 2009					
Our Lady of Lourdes, Drogheda (%)	5,304 (54%)	4,891 (51%)	6,840 (72%)	6,885 (85%)	10,522 (90%)
Our Lady's, Navan (%)	26 (<1%)	104 (1%)	133 (1%)	51 (<1%)	52 (<1%)
	1		1	1	1

Table 3C. Distribution of patients from the county of ED reconfiguration to remaining regional hospitals with EDs in the South

Patients from Cork	2011	2012	2013	2014
	(n = 32,827)	(n= 38,295)	(n=36,610)	(n=41,944)
Bantry (%)	42 (<1%)	2,975 (8%)	685 (2%)	3,662 (9%)
ED reconfigured July 2013				
Cork University Hospital (%)	2,0346 (62%)	24,013 (63%)	22,778 (62%)	24,802 (59%)
Mallow General Hospital (%)	2,678 (8%)	2,827 (7%)	3,175 (9%)	3,634 (9%)
ED reconfigured March 2013				
Mercy University Hospital (%)	5,553 (17%)	6,339 (17%)	8,374 (23%)	8,316 (20%)
South Infirmary Cork (%)	3,332 (10%)	1,305 (3%)	676 (2%)	642 (1%)
ED closed July 2012				
Tralee General Hospital (%)	92 (<1%)	91 (<1%)	102 (<1%)	94 (<1%)
Hospitals outside the South (%)	781 (2%)	745 (2%)	820 (2%)	794 (2%)

Table 3D. Distribution of patients from the county of ED reconfiguration to remaining regional hospitals with EDs in the Mid-West

Patients from Clare	2011	2012	2013	2014
	(n=8,985)	(n=9,224)	(n=8,956)	(n=9,436)
Ennis Regional (%)	2,894 (32%)	2,763 (30%)	2,027 (23%)	2,867 (30%)
ED reconfigured July 2013				
University Hospital Limerick (%)	4,905 (55%)	5,144 (56%)	5,687 (64%)	5,344 (57%)
Nenagh Hospital (%)	73 (<1%)	85 (<1%)	66 (<1%)	46 (<1%)
ED reconfigured September 2012				
Hospitals outside the Mid-West (%)	1,113 (12%)	1,232 (13%)	1,176 (13%)	1,179 (12%)
Patients from Tipperary	2011 (%)	2012	2013 (%)	2014
(County Tipperary split between	(n=14,378)	(n=15,488)	(n=16,301)	(n=16,039)
South-East and Mid-West)				
Ennis Regional (%)	9 (<1%)	9 (<1%)	6 (<1%)	21 (<1%)
ED reconfigured July 2013				
University Hospital Limerick (%)	1,930 (13%)	2,215 (14%)	2,559 (16%)	2,408 (15%)
Nenagh Hospital (%)	2,241 (16%)	1,692 (11%)	1,191 (7%)	1,329 (8%)
ED reconfigured September 2012				
Hospitals outside the Mid-West (%)	14,378 (71%)	11,572 (75%)	12,545 (77%)	12,281 (77%)