

Twenty Years of Take-home Naloxone: From Speculative Harm Reduction to Public Health Strategy

Rebecca McDonald¹, Nancy D. Campbell², and John Strang¹

¹ National Addiction Centre, King's College London (UK); ² Rensselaer Polytechnic Institute (US)

Introduction

- Death from opioid overdose can be prevented by timely administration of the antagonist naloxone.
- Pre-provision of naloxone to opioid users and family members (take-home naloxone, THN) was first proposed in 1996.
- Aim: To trace the development of THN from 1996 to present.

Method

- Medline and PsycINFO were searched for peer-reviewed literature (1990-2016) using Boolean queries: 1) "naloxone OR Narcan"; 2) "(opioid OR opiate) AND overdose AND prevention".
- Grey literature and specialist websites were also searched.

Results

- Results are presented as timeline and in four 5-year intervals:
- 1996-2001: Original articulation of THN proposal, testing of acceptability, and first implementation;
- 2001-2006: Early THN schemes amid safety and legal concerns;
- 2006-2011: Response to legal concerns led to THN program expansions to state/national level;
- 2011-2016: High-impact research and efforts to widen THN availability via new settings, workforces (e.g. police, pharmacists), and non-injectable products.

Limitations

- Non-English language publications likely underrepresented.

Conclusions

- THN programs have recently overcome legal barriers in many countries.
- However, THN provision remains low compared to evident growing clinical need.
- The 'opt-out' model of required pre-provision may achieve wider naloxone coverage.

Reference

- McDonald, R., Campbell, N. D., & Strang, J. (2017). Twenty years of take-home naloxone for the prevention of overdose deaths from heroin and other opioids – Conception and maturation. *Drug and Alcohol Dependence*, 178 (1), 176-187.

Declaration of Interests

- RM has undertaken an unpaid student industry placement with Mundipharma Research Ltd., with focus on the analysis of naloxone nasal spray formulations.
- NDC is supported by the Rensselaer Polytechnic Institute School of Humanities, Arts, and Social Sciences FLASH Grant and by a University of Freiburg Institute for Advanced Study (FRIAS) Fellowship.
- JS declares that he is a researcher and clinician who has worked with a range of types of treatment and rehabilitation service providers, governmental and non-governmental organizations, and with pharmaceutical companies, with collaborative exploration of potential new injectable or non-injectable forms of naloxone, including current work with Mundipharma. For fuller account, see www.kcl.ac.uk/ioppn/depts/addictions/people/hod.aspx.
- King's College London (employer for both JS and RM) has separately applied to register intellectual property on a novel buccal naloxone formulation with which JS and RM are involved.
- RM and JS are working as consultants for the United Nations Office on Drugs and Crime (UNODC).



Year	Country	Event
1996	UK	BMJ editorial by Strang et al. states 'home-based supplies of naloxone would save lives'
	USA	Chicago Recovery Alliance (CRA) distributes first THN kits
	Italy	Ministry of Health classifies naloxone as over-the-counter medication
	Italy	Reports of THN distribution in Padua
1998	Italy	Simini announces plans to distribute THN in Bologna and surrounding Emilia Romagna region in The Lancet
	UK	Island of Jersey (Channel Islands) starts THN distribution
1999	Germany	Fixpunkt Berlin starts THN distribution
	USA	San Francisco Needle Exchange starts THN distribution
	UK	ACMD report: "Naloxone should be made more generally available to those who are likely to witness opioid overdoses."
2001	Germany / UK	First published report of THN distribution by Dettmer et al. in BMJ
	Spain	Reports of underground THN distribution in Barcelona
	USA	New Mexico launches THN program
	UK	Introduction of first mainland THN scheme (south London)
2002	USA	Dan Bigg of CRA reports first lives saved using THN in BMJ
2003	USA	San Francisco Public Health Dept. starts THN program
2004	USA	Lower East Side Harm Reduction Coalition in New York starts THN distribution
	USA	Baltimore launches Staying Alive Drug Overdose Prevention Program
2005	UK	Legal status changed to permit emergency administration of naloxone by any member of the general public (Schedule 7 of the Medicines Act)
2006	USA	Boston Public Health Commission authorizes start of THN program, including provision of intranasal naloxone kits
2006	UK	National Treatment Agency for Substance Misuse (NTA) funds THN training pilot in 16 sites in England
2007	UK	Scotland and Wales establish THN pilots
2008	UK	Medical Research Council funds N-ALIVE trial
	Spain	Formal THN program launched in Barcelona
2010	USA	ONDCP National Drug Control Strategy endorses community use of naloxone
	UK	Scotland launches national THN program
2011	UK	Scottish Lord Advocate issues new guidelines
	UK	Wales launches national THN program
	Australia	First Australian THN program starts in Canberra
2012	Int'l	UNODC Resolution 55/7 states 'opioid overdose treatment, including the provision of opioid receptor antagonists such as naloxone, is part of a comprehensive approach to services for drug users'
	USA	FDA, CDC, NIDA, and HHS convene naloxone meeting
	UK	Advisory Council on the Misuse of Drugs urges Department of Health to review naloxone prescription-only status
	Australia	Naloxone is added to the Pharmaceutical Benefit Scheme
2013	Denmark	THN program starts (dual kits: intranasal and injectable)
	Estonia	Harju and East-Viru counties start THN distribution
2014	Norway	THN program starts (intranasal)
	Int'l	WHO releases guidelines on the community management of opioid overdose
2015	Ireland	Health Services Executive approves THN by prescription, THN project starts
	UK	UK government passes new legislation enabling drug services to issue THN without prescription
	USA	FDA approves a first naloxone nasal spray product
2016	Australia	Injectable naloxone becomes available over-the-counter
	Int'l	UNGASS 2016 includes 'Naloxone distribution to prevent overdose deaths' as an essential evidence-based strategy'
	Canada	Health Canada approves naloxone nasal spray product without prescription requirement
	USA	FDA convenes meeting to discuss naloxone dosing standards