

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

CAMBRIDGE LIBRARY COLLECTION

Books of enduring scholarly value

History of Medicine

It is sobering to realise that as recently as the year in which *On the Origin of Species* was published, learned opinion was that diseases such as typhus and cholera were spread by a 'miasma', and suggestions that doctors should wash their hands before examining patients were greeted with mockery by the profession. The Cambridge Library Collection reissues milestone publications in the history of Western medicine as well as studies of other medical traditions. Its coverage ranges from Galen on anatomical procedures to Florence Nightingale's common-sense advice to nurses, and includes early research into genetics and mental health, colonial reports on tropical diseases, documents on public health and military medicine, and publications on spa culture and medicinal plants.

Introductory Notes on Lying-In Institutions

The greatest postnatal killer of the nineteenth century was puerperal fever. A vicious and usually fatal form of septicaemia, puerperal or childbed fever was known to occur in maternity hospitals far more frequently than at home births, and to spread faster in crowded wards than in those with fewer patients. Its cause was unknown. In this precise statistical analysis of the facts, gathered from several sources across the major cities of Europe, Florence Nightingale (1820–1910) explores the mystery of puerperal fever and its possible causes. She stresses the necessity of good ventilation in hospitals, condemning those with overcrowded wards, and cites instances where the layout of wards has a noticeable correlation with the number of deaths. Published in 1871, just before Pasteur's work on germ theory proved that the problem could be all but eradicated if doctors washed their hands more rigorously, this work remains clear, scholarly and engaging.

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

Cambridge University Press has long been a pioneer in the reissuing of out-of-print titles from its own backlist, producing digital reprints of books that are still sought after by scholars and students but could not be reprinted economically using traditional technology. The Cambridge Library Collection extends this activity to a wider range of books which are still of importance to researchers and professionals, either for the source material they contain, or as landmarks in the history of their academic discipline.

Drawing from the world-renowned collections in the Cambridge University Library and other partner libraries, and guided by the advice of experts in each subject area, Cambridge University Press is using state-of-the-art scanning machines in its own Printing House to capture the content of each book selected for inclusion. The files are processed to give a consistently clear, crisp image, and the books finished to the high quality standard for which the Press is recognised around the world. The latest print-on-demand technology ensures that the books will remain available indefinitely, and that orders for single or multiple copies can quickly be supplied.

The Cambridge Library Collection brings back to life books of enduring scholarly value (including out-of-copyright works originally issued by other publishers) across a wide range of disciplines in the humanities and social sciences and in science and technology.

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

Introductory Notes on Lying-In Institutions

*Together with a Proposal
for Organising an Institution
for Training Midwives
and Midwifery Nurses*

FLORENCE NIGHTINGALE



Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

CAMBRIDGE UNIVERSITY PRESS

Cambridge, New York, Melbourne, Madrid, Cape Town,
Singapore, São Paulo, Delhi, Mexico City

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org

Information on this title: www.cambridge.org/9781108053198

© in this compilation Cambridge University Press 2012

This edition first published 1871

This digitally printed version 2012

ISBN 978-1-108-05319-8 Paperback

This book reproduces the text of the original edition. The content and language reflect
the beliefs, practices and terminology of their time, and have not been updated.

Cambridge University Press wishes to make clear that the book, unless originally published
by Cambridge, is not being republished by, in association or collaboration with, or
with the endorsement or approval of, the original publisher or its successors in title.

Cambridge University Press
978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale
Frontmatter
[More information](#)

ON

LYING-IN INSTITUTIONS.

Cambridge University Press
978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale
Frontmatter
[More information](#)

LONDON: PRINTED BY
SPOTTISWOODE AND CO., NEW-STREET SQUARE
AND PARLIAMENT STREET

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

INTRODUCTORY NOTES
ON
LYING-IN INSTITUTIONS.

TOGETHER WITH
A PROPOSAL FOR
ORGANISING AN INSTITUTION FOR TRAINING MIDWIVES
AND MIDWIFERY NURSES.

BY
FLORENCE NIGHTINGALE.

LONDON:
LONGMANS, GREEN, AND CO.
1871.

Cambridge University Press
978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale
Frontmatter
[More information](#)

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

IF I may dedicate, without ‘permission,’ these small
‘Notes’ to the shade of Socrates’ Mother, may
I likewise, without presumption, call to my help the
questioning shade of her Son, that I who write may
have the spirit of questioning aright, and that those
who read may learn not of me but of themselves?

And, further, has he not said: ‘The midwives are
respectable women, and have a character to lose’?

Cambridge University Press
978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale
Frontmatter
[More information](#)

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

PREFACE.



IN the year 1862 the Committee of the Nightingale Fund, with a view to extending the advantages of their Training Institution, entered into an arrangement with the authorities of St. John's House, under which wards were fitted up in the new part of King's College Hospital, opening out of the great staircase and shut up within their own doors, for the reception of Midwifery cases. The wards were under the charge of the (then) Lady Superintendent. Arrangements were made for medical attendance, a skilled midwife was engaged, a certain number of pupil nurses were admitted for training; and hopes were entertained that this new branch of our Training School would confer a great benefit on the poor, especially in country districts, where trained Midwifery nurses are needed.

Every precaution had apparently been taken to render the Midwifery Department perfectly safe; and it was not until the school had been upwards of five years in existence, that the attention of the Nightingale Committee was called

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

to the fact that deaths from puerperal diseases had taken place in each of the preceding years.

During the period of nearly six years that the wards were in use, the records show that 780 women had been delivered in the institution, and that out of this number twenty-six* had died—a mortality of 33·3 per 1,000.

The most fatal year was 1867, in which year nine out of the twenty-six deaths took place. In the month of January a pregnant woman, who was under treatment for erysipelas in the hospital, was delivered in a general medical ward, No. 4, in the first-built wing of the hospital. A midwife was told off to attend her, who was not suffered to be near the midwifery wards for a considerable time. The erysipelas case died of puerperal fever; and this death was followed by a succession of puerperal deaths in the lying-in wards until November, when the wards were as soon as possible closed.

An analysis of the causes of death showed that, with the exception of one death from hæmorrhage, not a single death had taken place from accidents incidental to child-bearing during the whole six years. There were three deaths due to diseases not necessarily concomitants of this condition; while of the others, twenty-three in number, no fewer than seventeen were due to puerperal fever, three to puerperal peritonitis, two to pyæmia, and one to metritis.

* Exclusive of the case of a poor woman who was delivered in a cab, and died in the hospital of *post partum* hæmorrhage.

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

PREFACE.

ix

The following table gives the actual fates and dates:—

Midwifery Statistics, King's College Hospital.

Year	Total Deliveries	Fatal Cases				Deaths to Labours
		Date of Birth	Nature of Labour	Cause of Death	Date of Death	
1862	97	Nov. 6	Natural	Puerperal peritonitis	Nov. 25	1 in 32·8
		" 30	Twins	{ Phthisis and puerperal fever	Dec. 27	
		Dec. 10	Natural	Puerperal peritonitis	Dec. 20	
1863	105	Jan. 10	{ Natural Child } still-born	Puerperal fever	Jan. 16	1 in 52·5
1864	141	April 29	Natural	Puerperal fever	May 20	1 in 47
		Feb. 16	Natural	Puerperal fever	Feb. 25	
		April 14	Induced	Pyæmia	April 29	
1865	163	Jan. 1	Born in cab	Hæmorrhage	Dec. 7	1 in 32·6
		Jan. 30	Natural	Embolism	Feb. 12	
		Feb. 8	Natural	Puerperal fever	Feb. 18	
		June 24	Forceps	{ Puerperal metritis and } pelvis cellulitis	July 30	1 in 30
		Oct. 20	Forceps	{ Laceration of perinæum, } puerperal fever	Nov. 3	
1866	150	Oct. 29	Natural	Puerperal fever	Nov. 9	
		Jan. 10	Natural	Gastro-enteritis	Jan. 20	1 in 30
		Mar. 24	Natural	{ Retained placenta, puer- } peral fever	April 10	
		Oct. 8	{ Placenta prævia, } Turning	Emphysema and bronchitis	Oct. 10	
		Nov. 10	Forceps	Peritonitis	Nov. 15	1 in 13·8
		Dec. 4	Natural	Puerperal fever	Dec. 31	
1867	125	Jan. 10	{ (Had erysipelas } when admitted*)	Puerperal fever	Jan. 30	
		Feb. 7	Natural	{ Considerable hæmorrhage, } puerperal fever	Feb. 22	1 in 13·8
		" 8	Natural	Puerperal fever	Feb. 22	
		April 12	Turning	Puerperal fever	April 22	
		May 18	Natural	Pyæmia	May 27	1 in 13·8
		June 4	Natural	Puerperal fever	June 19	
		July 26	Natural	Puerperal fever	Aug. 11	
		Nov. 5	{ Twins: 1st dead, } 2nd by turning	Puerperal fever	Nov. 10	1 in 13·8
		" 8	Forceps	{ Laceration of vagina, puer- } peral fever	Nov. 14	
Total	781	—	—	—	deaths: 27	1 in 28·9

* 'So was confined in No. 4 ward.'

Under these deplorable circumstances the closing of the wards was a matter of course; and since that event we have been anxiously enquiring whether it would be justifiable to re-open our Midwifery Nursing School under other conditions.

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

x

PREFACE.

This question is discussed in the following pages, from a basis of statistical facts supplied by the best authorities; and a few proposals have been added, with the view of turning to the best account our past experience, by extracting from it any leading principles which may present themselves for practical application in the future construction and management of Lying-in Institutions, and more especially in connection with means of training Midwifery nurses.

These Introductory Notes, collected and put together under circumstances of all but overwhelming business and illness, are now thrown out merely as a nucleus, in the hope that others will be kind enough to supplement, to add, and to alter; in fact, only as a hook with a modest little fish on it—a bait to catch other and finer fish.

The facts themselves, the nucleus, have been made as correct as it was possible, and as would have been done for a finished work. But the facts themselves are only put forth as feelers—feelers to feel my own way.

I need scarcely say either that these ‘Notes’ are not at all meant to discuss every point which presents itself in Midwifery statistics. On the contrary, they are, for the moment, purposely limited to the consideration of facts immediately relating to the present object.

Let me thank once more with true gratitude all those who have so kindly supplied me with help and information, some of whose names will appear in the following pages.

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

CONTENTS.

	PAGE
PREFACE	vii-x
<i>Table of Midwifery Statistics, King's College Hospital</i> . . .	ix
<i>What is the real normal Death-rate of Lying-in Women?</i> . . .	1
MIDWIFERY STATISTICS	2
NORMAL DEATH-RATE OF LYING-IN WOMEN IN ENGLAND . . .	4
TABLE I.— <i>Mortality after Childbirth in England, 1867</i> . . .	4
TABLE II.— <i>Mortality per 1,000 after Delivery from Puerperal Diseases and Accidents of Childbirth</i>	6
NORMAL MORTALITY OF LYING-IN WOMEN IN DIFFERENT COUNTRIES .	7
TABLE III.— <i>Death-rate from all Causes amongst Women delivered in their own Homes</i>	8
OBJECTIONS TO THE DATA	9
ESTIMATED APPROXIMATE HOME DEATH-RATE	11
DEATH-RATES IN LYING-IN INSTITUTIONS	11
TABLE IV.— <i>Admissions and Deaths in Childbirth in eight Women's Hospitals (Military)</i>	12
TABLE V.— <i>Statistics of Midwifery Wards in Liverpool Workhouse</i> .	13
TABLE VI.— <i>Mortality after Childbirth in forty London Workhouses</i> .	13
TABLE VII.— <i>Mortality in Queen Charlotte's Hospital</i>	14

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

	PAGE
TABLE VIII.— <i>Mortality per 1,000 from all Causes after Delivery</i>	15
TABLE IX.— <i>Mortality in Lying-in Ward, King's College Hospital</i>	15
TABLE X.— <i>Death-rate from all causes in Lying-in Hospitals</i>	17
TABLE XI.— <i>Mortality per 1,000 among Lying-in Women at Paris Hospitals, 1861</i>	20
TABLE XII.— <i>Mortality per 1,000 among Lying-in Women at Paris Hospitals, 1862</i>	20
TABLE XIII.— <i>Mortality per 1,000 among Lying-in Women at Paris Hospitals, 1863</i>	21
CLASSIFICATION OF CAUSES OF MORTALITY IN LYING-IN INSTITUTIONS	21
CAUSES OF HIGH DEATH-RATES IN LYING-IN INSTITUTIONS	23
<i>Puerperal Fever</i>	24
<i>Admission of Students</i>	25
<i>Effect of Numbers</i>	26
<i>Danger of Puerperal Epidemics</i>	31
<i>Fatality of Lying-in Wards in General Hospitals</i>	32
INFLUENCE OF CONSTRUCTION AND MANAGEMENT OF LYING-IN WARDS	
ON THE DEATH-RATE	33
<i>Maternité, Paris</i>	34
<i>Hôpital de la Clinique, Paris</i>	36
<i>Queen Charlotte's Lying-in Hospital, London</i>	38
<i>Midwifery Wards, King's College Hospital, London</i>	40
IMPROVED LYING-IN WARD CONSTRUCTION	41
<i>Military Female Hospitals</i>	41
TABLE XIV.— <i>Classification of Causes of Death in Childbirth in Eight Women's Hospitals (Military)</i>	43
<i>Proposed new Female Hospital at Portsmouth</i>	45
SHOULD MEDICAL STUDENTS BE ADMITTED TO LYING-IN HOSPITAL PRACTICE?	48

Cambridge University Press

978-1-108-05319-8 - Introductory Notes on Lying-In Institutions: Together with a
Proposal for Organising an Institution for Training Midwives and Midwifery Nurses
Florence Nightingale

Frontmatter

[More information](#)

CONTENTS.

xiii

	PAGE
INFLUENCE OF TIME SPENT IN A LYING-IN WARD ON THE DEATH-RATE	50
EFFECT OF GOOD MANAGEMENT ON THE SUCCESS OF LYING-IN ESTABLISHMENTS	52
<i>Liverpool Workhouse</i>	53
<i>Summary of Cases Delivered in the Lying-in Wards of Liverpool Workhouse, 1868-1870</i>	53
<i>Summary of Deaths and Causes of Death in the same, 1858-1870</i> .	54
<i>London Workhouses</i>	58
MANAGEMENT OF MILITARY LYING-IN WARDS	62
NOTE on altogether disconnecting Lying-in Institutions even with the very name of Hospital	64
RECAPITULATION	65
TABLE XV.—Comparative Mortality among Lying-in Women in Hospitals and at Home	68
CAN THE ARRANGEMENT AND MANAGEMENT OF LYING-IN INSTITUTIONS BE IMPROVED?	68

CHAPTER II.

CONSTRUCTION AND MANAGEMENT OF A LYING-IN INSTITUTION AND TRAINING SCHOOL FOR MIDWIVES AND MIDWIFERY NURSES .	72
I. CONSTRUCTION OF A LYING-IN INSTITUTION	74
1. <i>How many Beds to a Ward?</i>	74
TABLE XVI.—Proposed Registry of Midwifery Cases	75
2. <i>How many Wards to a Floor?</i>	76
3. <i>How many Floors to a Pavilion (Hut or Cottage)?</i>	76
<i>How many Beds to a Pavilion or Hut?</i>	76
<i>How many Pavilions or Huts to a Lying-in Institution?</i>	76
4. <i>How much Space to the Bed?</i>	77
<i>The Delivery Ward</i>	77

xiv	CONTENTS.	
		PAGE
5.	<i>How many Windows to a Bed ?</i>	78
6.	<i>What are Healthy Walls, and Ceilings, and Floors ?</i>	78
7.	<i>What is a Healthy and Well-lighted Delivery Ward ?</i>	79
8.	<i>Scullery, Lavatory, W.C.</i>	81
9.	<i>How to ventilate Lying-in Wards.</i>	83
10.	<i>Furniture, Bedding, Linen</i>	84
11.	<i>Water-supply, Drainage, Washing</i>	85
	<i>Medical Officer's Room and Waiting Room</i>	85
13.	<i>Segregation Ward</i>	86
14.	<i>Kitchen</i>	86
	<i>SITE</i>	86
II.	MANAGEMENT	90
	<i>First Rule of Good Management</i>	90
	<i>Second Rule of Good Management</i>	91
	<i>Third Rule of Good Management</i>	93
III.	TRAINING SCHOOL FOR MIDWIVES	94
	DESCRIPTION OF SKETCH-PLANS OF PROPOSED INSTITUTION	100
	<i>A Lying-in Institution for 40 beds (32 to 36 occupied), with a training school for 30 pupil Midwives and Nurses</i>	102
	APPENDIX: MIDWIFERY AS A CAREER FOR EDUCATED WOMEN.	105

LIST OF PLANS.



NO.	
1.	QUEEN CHARLOTTE'S LYING-IN HOSPITAL, LONDON to face page 38
2.	WOODEN LYING-IN HUT IN COLCHESTER CAMP „ 44
3.	PLAN OF A LYING-IN WARD, FOUR BEDS „ 100
4.	PLAN OF A LYING-IN FLOOR, FOUR ONE-BED ROOMS „ 101
5.	PLAN OF A LYING-IN INSTITUTION FOR 40 (32 TO 36 OCCUPIED) BEDS, WITH TRAINING SCHOOL FOR 30 PUPIL MIDWIVES „ 104