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# Report on e-learning for Dissemination of Research Findings

LifeCycle report D11.4
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Erasmus MC

PO box 2040

The Netherlands

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#### **List of Abbreviations**

AHP: Allied Healthcare Professional

ChiFHA: Child and Family Health Academy (previously Early Nutrition e-Academy;

ENeA)

DoW: Description of Work

**ENeA: Early Nutrition e-Academy** HCP: Healthcare Professional NCD: Non-Communicable Disease

WP: Work Package





#### **Executive summary**

This deliverable entails the development of the two e-learning modules targeted to researchers and international healthcare professionals. These modules compiled the latest evidence in the topics investigated in the LifeCycle Project, including some of its research outputs.

"Epidemiology: the importance of study types and confounding" and "Early Life Exposures on Later Health" were made available online at <a href="mailto:chifha.med.lmu.de">chifha.med.lmu.de</a> without access restriction and disseminated among the networks of the LifeCycle project consortium.

Feedback from participants of the e-learning modules reported that most participants (75–81%) increased their perceived confidence in the topic covered by the course. In addition, most participants agreed that the new knowledge gained through these modules would lead to changing their perspectives or practice (74%) as well as to train other healthcare professionals (76-89%). These findings suggest that LifeCycle e-learning is a potentially strong tool for dissemination of research findings and epidemiological concepts and for translation of theoretical knowledge into practical application. The e-learning modules will remain open access, ensuring continued ability to reach and inform new audiences. ChiFHA at LMU will continue to host these modules on their servers through co-funding for the HCPs and researchers.



#### 1. Introduction

The aim of Task 11.3 was to set up an e-learning module for dissemination of research findings, consolidating the scientific evidence base and status of recommendations of LifeCycle topics and outcomes. The open-access e-learning modules target international AHPs and researchers working in this field and have been implemented and made publically available on the LMU Children's Hospital's Child and Family Health Academy (ChiFHA) platform (previously Early Nutrition e-Academy; ENeA)

(<a href="https://chifha.med.lmu.de/course/index.php?categoryid=9">https://chifha.med.lmu.de/course/index.php?categoryid=9</a>). Through this means, research findings and WP outputs from LifeCycle Project are directly transferred into practical applications and effectively disseminated in-line with current concepts of using digital information sharing with a broad global outreach. To date, the platform counts with over 13000 registered users (mainly HCPs) from 179 countries.

The topics originally planned to be covered in this e-learning activity were:

- 1) Life course trajectory analysis (with WP7)
- 2) Causal inference analysis (with WP7)
- 3) Programming of cardio-metabolic disease (with WP4)
- 4) Programming of respiratory disease (with WP5)
- 5) Programming of psychiatric disease (with WP6)

#### 2. E-learning Development

Due to the varied nature of the topics selected for the e-learning activity, the consoritum agreed that the contributing authors divide the content in two e-learning modules, each with a different focus, rather than one large module. The LifeCycle consoritum and module authors unanimously agreed to deviate from the originally planned content of the modules in order to create cohesive modules with complementary units.

The final e-learning modules and units are as follows:

The Netherlands

# **Module 1: Epidemiology: the importance of study types and confounding** With two units:

#### Unit 1: "Understanding different types of applied epidemiology"

This unit substituted the originally planned topic of "life course trajectory analysis" (with WP7), with a more specific focus. This unit looks into descriptive and casual epidemiology around life-course development of health and diseases.

#### Unit 2: "The concept of confounding and examples in life course epidemiology"

This unit substituted the originally planned topic of "causal inference analysis" (with WP7) with a more specific focus. This unit addresses the threat of confounding and time-varying confounding in observational life-course epidemiological studies.





#### Module 2: Early Life Exposures on Later Health

With three units:

# Unit 1: "Preconception risk factors for Non-Communicable Diseases (NCDs) and interventions"

This unit substituted the originally planned topic of "programming of cardio-metabolic disease" (with WP4). This unit particularly focuses on preconception as a key to prevent NCDs (including cardio-metabolic diseases) through generations. It emphasizes the role of healthcare and public health practitioners in preconception care.

#### Unit 2: "Early-life exposures and childhood asthma"

This unit substituted the originally planned topic of "programming of respiratory disease" (with WP5), by focusing on childhood asthmatic disease and the risk it implies for respiratory health in later life. In addition, this unit discusses the role that early life exposures play on the risk of asthma development, as well as recommendations and guidelines for childhood asthma management.

#### Unit 3: "Early-life exposures and childhood mental health"

This unit replaced the originally planned topic of "programming of psychiatric disease" (with WP6). This unit depicts the development of nervous system and focuses on the possible implications of environmental factors in the etiology of neurodevelopmental disorders. Additionally, it addresses the potential role of the abovementioned disorders in later-life pathologies.

**Figure 1** and **Figure 2** summarize the final content, as it is presented on the Home Pages of the final modules.





#### Unit 1

Understanding different types of applied epidemiology



Self-assessment

Lesson 1: Descriptive epidemiology

Lesson 2: Associational epidemiology

Lesson 3: Experimental epidemiology

**CME Test** 

**CME Certificate of Completion** 

**EACCME** 

1 European CME credit

Unit 2

The concept of confounding and examples in life course epidemiology

🖔 60 min\*

Self-assessment

Lesson 1: Introduction to Confounding

Lesson 2: Directed Acyclic Graphs (DAGs)

Lesson 3: Time-Varying Confounding

**CME Test** 

**CME Certificate of Completion** 

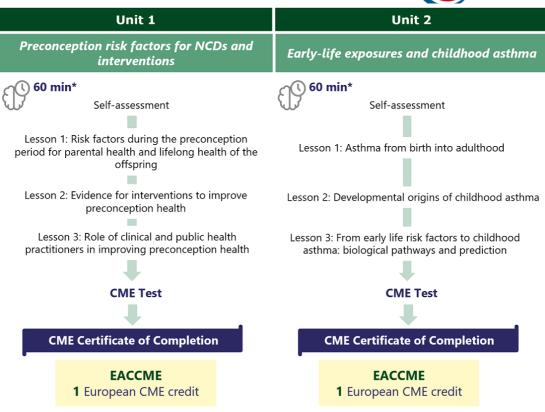
**EACCME** 

1 European CME credit

\*Estimated learning time excludes external links and resources

Figure 1. Module Structure for Lifecycle Module "Epidemiology: the importance of study types and confounding". Shown as presented in the Module Home page (under Unit overview).





\*Estimated learning time excludes external links and resources



**Figure 2. Module Structure for Lifecycle Module** "*Early Life Exposures on Later Health*". Shown as presented in the Module Home page (under Unit overview).



#### 3. Results

Both modules were successfully developed, implemented and made available online (open access) during project lifetime. **Table 1** summarizes key facts about each e-learning module.

Table 1. Summary of LifeCycle e-learning Final Outputs

Module	Epidemiology: the importance of study types and confounding	Early Life Exposures on Later Health
Launch Date (online without access restriction)	15/09/2021 (PM 57)	30/04/2022 (PM 64)
Available at	https://chifha.med.lmu.de/course/index.ph p?categoryid=85	https://chifha.med.lmu.de/course/index.php?categoryid=84
Accreditation	2 CME credits	3 CME credits
Learning Time	120 min	180 min
Enrolled Users in first Unit (Status 07/09/2022)	182	96

Early launch of the first module on Epidemiology: the importance of study types and confounding; allowed for collection of user feedback. All users who wish to receive a Certification of Completion and CME points are required to complete an anonymous evaluation questionnaire upon completion of each unit. Feedback analysis for Units 1 and 2 are attached under **Appendix 1** and **Appendix 2** respectively.

#### 4. Conclusion

Development of e-learning content in the context of the LifeCycle Project allowed for high-quality evidence-based content. Expert input was possible due to collaboration among researchers specialised in different areas of early-life health. The e-learning modules include the latest evidence with a top-down approach, including recent publications from the LifeCycle Project.

Data, as on 07/09/2022 from anonymous evaluation questionnaires (**Appendix 1** and **Appendix 2**) from module *Epidemiology: the importance of study types and confounding* reveals that the participants who completed our first module were primarily researchers and medical healthcare professionals working at universities or hospitals, with more than 2 years of working experience. Users took up the module primarily to learn for their current job (66% in Unit 1; 65% in Unit 2). The majority of participants agreed that the unit met their needs in the field of early life health (89% in Unit 1; 88% in Unit 2) and their confidence in the topic of epidemiology was increased (75% in Unit 1; 81% in Unit 2).

These findings show that most of our course completing participants matched the profile of our target audience, who in overall reported to acquire new knowledge from these modules. In addition, 74% agreed that the new knowledge would lead to changing their perspectives or practice while 89% (in Unit 1) and 76% (in Unit 2) agreed the unit would help them train other healthcare professionals. This reflects a potential application of the course content into the learners' professional practices.

The Netherlands



Although further dissemination will still be undertaken, the current data suggests that the LifeCycle project e-learning modules are a successful tool to reach researchers and healthcare professionals in practice, translating LifeCycle's research findings into practical application.

#### 5. Contribution of partners

As a task lead, LMU coordinated the content development and didactic concept together with all the partners by providing appropriate guidelines and templates. The scientific writing teams were formed by partners from BTHFT; UNITO; ERASMUS; UoS and IsGlobal, each team developed the content of one unit. Additionally, ERASMUS partners reviewed the final modules. LMU implemented and coordinated the online content. The list below provides an overview of the roles of the different partner institutions during module development. **Table 3** provides a detailed list of authors and reviewers involved in each module and unit.

- **LMU**: Didactic and Technical Concept; Corporate Design; Accreditation; Implementation; Platform Management, for both modules.
- **BTHFT**: Scientific authors of Unit 1 of the Epidemiology module.
- UNITO: Scientific authors of Unit 2 of the Epidemiology module.
- **ERASMUS**: Scientific authors of Unit 2 of the Epidemiology module; Scientific authors of unit 2 of the Early life exposures module; Module review for both modules.
- UOS: Scientific authors of Unit 1 of the Early life exposures module.
- ISGLOBAL: Scientific authors of Unit 3 of the Early life exposures module.

Table 2. List of Authors and Reviewers per Module and Unit

Unit	Scientific Authors	Scientific Reviewers	Didactical and Technical Concept and Implementation
Epid	lemiology: the importance	of study types and confound	ling
Unit 1: Understanding different types of applied epidemiology	Dr. Tiffany Yang Prof. Rosie McEachan Mr. Paul Wilson	Prof. John Wright Dr. Dan Mason Prof. Vincent Jaddoe	Dr. Shweta Feher Ms. Marina Sanchez Garcia Ms. Jelica Gencel Mr. Dung Vo Duc Mr. Nhan Ngoc Tran Ms. Alicia Tome Romero Mr. Prudhvi Inja Dr. Brigitte Brands
Unit 2: The concept of confounding and examples in life course epidemiology	Dr. Costanza Pizzi Dr. Susana Santos Prof. Daniela Zugna Prof. Lorenzo Richiardi	Dr. Ghislaine Scelo Prof. Vincent Jaddoe	
Early Life Exposures on Later Health			
Unit 1: Preconception risk factors for Non-Communicable Diseases (NCDs) and interventions	Dr. Chandni Maria Jacob Prof Mark Hanson	Dr. Danielle Schoenaker Prof. Judith Stephenson Prof. Vincent Jaddoe	Dr. Shweta Feher Ms. Marina Sanchez Garcia Mr. Prudhvi Inja Mr. Nhan Ngoc Tran Dr. Brigitte Brands
Unit 2: Early-life exposures and childhood asthma	Dr. Liesbeth Duijts Dr. Herman (Martijn) den Dekker	Prof. Johan de Jongste Prof. Vincent Jaddoe	



Unit 3: Early-life exposures and childhood mental health Dr. Anne-Claire Binter Dr. Jordi Julvez Prof. Jordi Sunyer Dr. Serena Fossati Prof. Vincent Jaddoe

The authors declare no conflict of interest.

#### 6. Deviations from original plan

As described in section 2 (*e-learning Development*), the originally planned content was subdivided in two e-learning modules. This allowed for a didactic module structure with more focused learning outcomes. **Table 3** shows the planned unit names against the final unit names:

Table 3. Correspondence of final module and unit names with originally planned names.

Originally planned topic names in the DoW	Corresponding final unit names in the e-learning modules
Life course trajectory analysis	Epidemiology Module - Unit 1: Understanding different types of applied epidemiology
Causal inference analysis	Epidemiology Module - Unit 2: The concept of confounding and examples in life course epidemiology
Programming of cardio-metabolic disease	Early Life Exposures on Later Health Module – Unit 1: Preconception risk factors for Non-Communicable Diseases (NCDs) and interventions
Programming of respiratory disease	Early Life Exposures on Later Health Module – Unit 2: Early-life exposures and childhood asthma
Programming of psychiatric disease	Early Life Exposures on Later Health Module – Unit 3: Early-life exposures and childhood mental health

The development of the module *Early Life Exposure on Later Health* was delayed due to pandemic-related challenges, including authors needing to prioritize healthcare work over module writing. This module was launched in M64.

#### 7. Dissemination activities

The Launch of the e-learning module *Epidemiology: the importance of study types and confounding* was announced and disseminated with the purpose to reach researchers and international healthcare professionals. The main dissemination methods were:

- Announcement via the ChiFHA (earlier ENeA) e-learning platform to all registered users (over 13,000 users).
- Announcement via ENeA Newsletter (6885 subscribers).
- Social media posts (1114 Twitter followers).
- Direct communication with professional Associations and Societies (mainly medical associations).
- Dissemination material was shared with LifeCycle partners for further distribution among their professional networks.
- Announcement on the LifeCycle website.





The dissemination of the e-learning module *Early Life Exposures on Later* Health is still in progress. The formal launch announcement will be circulated with the methods listed above (including publication in the LifeCycle website) and additionally:

- It was presented at the International Conference on Practice Nutrition (<u>Jornadas</u> Internacionales de Nutrición Práctica) in Madrid on 30<sup>th</sup> of March 2022.
- It will be disseminated among institutions that granted permission to reuse their material in the LifeCycle e-learning module.





### Appendix 1. Analysis of the anonymous evaluation questionnaire for Epidemiology: the importance of study types and confounding – Unit 1: Understanding different types of applied epidemiology

Status 07.09.2022 Submitted answers: 64

#### **Question 1: Profession**

Profession	Responses
Medicine: Paediatrics	3 (5 %)
Medicine: Obstetrics / Gynaecology	6 (9 %)
Medicine: General Practice / Family Medicine	5 (8 %)
Medicine: Specialist Other Areas	5 (8 %)
Nursing / Midwifery	4 (6%)
Nutrition / Dietetics	11 (17 %)
Research	21 (33 %)
Other Healthcare Sectors	3 (5 %)
Student / Trainee	6 (9 %)

#### Question 2: Workplace/ Professional setting

Profession	Responses
Hospital/ Clinic	18 (29 %)
Private Practice	6 (9 %)
Food/ Pharmaceutical Industry	1 (2 %)
Pharmacy	0
University	20 (31 %)
Educational institutions	12 (19 %)
Other	7 (11 %)

#### Question 2a: If other, please specify

- Research Center
- Research institute
- Retail Company
- NGO
- Governmental organization
- Medical Genetics

#### Question 3: Level of experience

Level of experience	Responses
Student/ Trainee/ Intern	13 (20 %)
Junior / Entry-level (0 - 2 years experience)	14 (22 %)
Mid-level (2 - 5 years experience)	12 (19 %)
Experienced level (5 - 15 years)	16 (25 %)
Senior level (>15 years)	9 (14%)



#### Question 4: How did you hear about ENeA Global?

Source of introduction to ENeA Global	Responses
Search engine	6 (9 %)
Newsletter/ Press release/ Article	7 (11 %)
Social Media (e.g. LinkedIn, Twitter)	5 (8 %)
Membership in professional associations/societies	7 (11 %)
University	8 (13 %)
Family/ Friends	4 (6 %)
Employer/ Colleague	18 (28 %)
Other	9 (14 %)

#### Question 4a: If other, please specify:

- Medical conference that I attended
- Coursera
- Coursera
- LIFECYCLE PROJECT
- Email
- Wyeth staff introduced me
- e-mail
- courseera

# Question 5: What was your primary motivation for completing this unit on "Understanding different types of applied epidemiology"?

Primary motivation for completing Unit 1	Responses
Learn for my current job	42 (66 %)
Receive Certificate of Completion	9 (14 %)
It is part of my mandatory lecture	2 (3 %)
Personal, non-career interest	3 (5 %)
Explore a new career area	5 (8 %)
Other	3 (5 %)

#### Question 5a. If other, please specify:

- Revision
- To acquire a better understanding of the types of epidemiological research being used in published medical papers that I utilize to further my medical knowledge.

#### Question 6: The unit content was arranged in a clear and logical manner.

Level of agreement with statetemen: "The unit content was arranged in a clear and logical manner"	Responses
strongly agree	40 (62 %)
agree	24 (38 %)
neither agree/disagree	0
disagree	0
strongly disagree	0

#### Question 7: The interface was easy to use.

Level of agreement with statetemen: "The interface was easy to use."	Responses
strongly agree	41 (64 %)
agree	21 (33 %)
neither agree/disagree	2 (3 %)
disagree	0
strongly disagree	0



#### Question 8: Please explain.

- Logical order ad easy to follow. Balanced amount of text on each page.
- The content was useful for me
- The interface was easy to navigate, but little dull and texty.
- It was not always clear on the interface where to find the lectures for this course.

#### Question 9: The unit content was consistent with the learning objectives.

Level of agreement with statetemen: "The unit content	Responses
was consistent with the learning objectives."	
strongly agree	36 (56 %)
agree	27 (42 %)
neither agree/disagree	1 (2%)
disagree	0
strongly disagree	0

#### Question 10: This unit met my needs in the field of early life health.

Level of agreement with statetemen: "This unit met my needs in the field of early life health."	Responses
strongly agree	30 (47 %)
agree	27 (42 %)
neither agree/disagree	6 (9 %)
disagree	1 (2 %)
strongly disagree	0

### Question 11: My confidence in counselling patients/using the newly acquired knowledge on understanding different types of applied epidemiology has increased as a result of this unit.

res of applica epidefinology has increased as a result of this unit.	
Level of agreement with statetemen: "My confidence in counselling patients/using the newly acquired knowledge on understanding different types of applied epidemiology has increased as a result of this unit."	Responses
strongly agree	21 (33 %)
agree	27 (43 %)
neither agree/disagree	13 (20 %)
disagree	2 (3 %)
strongly disagree	1 (2 %)

#### Question 12: Using this unit will lead to changing my perspectives and/or practice.

Level of agreement with statetemen: "Using this unit will lead to changing my perspectives and/or practice."	Responses
strongly agree	19 (31 %)
agree	28 (44 %)
neither agree/disagree	15 (23 %)
disagree	2 (3 %)
strongly disagree	0

#### Question 12a: Why/ why not?

- Very for an update of the topics, that I have learned about previously, but needed a reminder of.
- Most of the information in Unit 1 was already very familiar to me. Useful yes, but familiar.
- I have some background knowledge

#### Question 12b: If yes, please give us examples?

- It has helped me better interpret research.
- I now have a better understanding of different types of study design
- I believe that the content of the course is essential to understand research papers.

This project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 733206 (LifeCycle).



Question 13: This unit helps me to inform or train other healthcare professionals.

Level of agreement with statetemen: "Using this unit will lead to changing my perspectives and/or practice."	Responses
strongly agree	27 (42 %)
agree	30 (47 %)
neither agree/disagree	6 (10 %)
disagree	0
strongly disagree	1 (2 %)

Question 14: Overall how would you rate the unit? 1 being the minimum score (poor) and 10 being the maximum (excellent)

(excellent)	
User Sr. No	Rating by user
1	10
2	10
3	9
4	10
5	10
6	9
7	8
8	9
9	8
10	10
11	10
12	10
13	8
14	9
15	10
16	10
17	7
18	8
19	8
20	9
21	10
22	8
23	7
24	9



25	10
26	9
27	1
28	10
29	1
30	9
31	7
32	10
34	10
35	8
36	9
37	10
38	6
39	10
40	1
41	5
42	8
43	8
44	8
45	7
46	7
47	10
48	9
49	6
50	7
51	7
52	8
53	10
54	8
55	5
56	8





57	8
58	10
59	8
60	7
61	7
62	10
63	9
64	9

Average: 8.22

Question 15: Based on this experience, I would complete another e-learning unit on ENeA Global.

destion 13. based on this experience, I would complete another e-learning unit on liver diobal.		
Level of agreement with statetemen: "Based on this experience, I would complete another e-learning unit on ENeA Global."	Responses	
strongly agree	38 (59 %)	
agree	25 (39 %)	
neither agree/disagree	1 (2 %)	
disagree	0	
strongly disagree	0	

Question 16: I would recommend this learning activity to others.

Level of agreement with statetemen: "I would	Responses
recommend this learning activity to others".	
strongly agree	33 (52 %)
agree	28 (44 %)
neither agree/disagree	3 (5 %)
disagree	0
strongly disagree	0

Question 17: This e-learning platform has improved my knowledge in the field of early nutrition.

Level of agreement with statetemen: "This e-learning platform has improved my knowledge in the field of early nutrition".	Responses
strongly agree	24 (38%)
agree	24 (38 %)
neither agree/disagree	9 (14 %)
disagree	7 (11 %)
strongly disagree	0



# Appendix 2. Analysis of anonymous evaluation questionnaire for Epidemiology: the importance of study types and confounding — Unit 2: The concept of confounding and examples in life course epidemiology

Status 07.09.2022 Submitted answers: 40

#### **Question 1: Profession**

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Profession	Responses
Medicine: Paediatrics	2 (5 %)
Medicine: Obstetrics / Gynaecology	2 (5 %)
Medicine: General Practice / Family Medicine	4 (10 %)
Medicine: Specialist Other Areas	3 (8 %)
Nursing / Midwifery	2 (5 %)
Nutrition / Dietetics	5 (13 %)
Research	15 (38 %)
Other Healthcare Sectors	4 (10 %)
Student / Trainee	3 (8 %)

#### Question 2: Workplace/ Professional setting

Profession	Responses
Hospital/ Clinic	8 (20 %)
Private Practice	4 (10 %)
Food/ Pharmaceutical Industry	1 (3 %)
Pharmacy	1 (3 %)
University	16 (40 %)
Educational institutions	6 (15 %)
Other	4 (10 %)

#### Question 2a: If other, please specify

- Research Institute
- NGO
- Medical Genetics

#### Question 3: Level of experience

•	cotton or zever or experience	
	Level of experience	Responses
	Student/ Trainee/ Intern	8 (20 %)
	Junior / Entry-level (0 - 2 years experience)	9 (23 %)
	Mid-level (2 - 5 years experience)	7 (18 %)
	Experienced level (5 - 15 years)	11 (28 %)
	Senior level (>15 years)	5 (13 %)

#### Question 4: How did you hear about ENeA Global?

Source of introduction to ENeA Global	Responses
Search engine	3 (8 %)
Newsletter/ Press release/ Article	2 (5 %)
Social Media (e.g. LinkedIn, Twitter)	3 (8 %)
Membership in professional associations/societies	2 (5 %)
University	5 (13 %)
Family/ Friends	2 (5 %)
Employer/ Colleague	18 (45 %)
Other	5 (13 %)



#### Question 4a: If other, please specify:

- LIFECYCLE
- Medical conference
- Coursera

# Question 5: What was your primary motivation for completing this unit on "Understanding different types of applied epidemiology"?

Primary motivation for completing Unit 1	Responses	
Learn for my current job	26 (65 %)	
Receive Certificate of Completion	3 (8 %)	
It is part of my mandatory lecture	1 (3 %)	
Personal, non-career interest	1 (3 %)	
Explore a new career area	4 (10 %)	
Other	5 (13 %)	

#### Question 5a. If other, please specify:

- To achieve a better understanding of epidemiology
- REVISION

#### Question 6: The unit content was arranged in a clear and logical manner.

Level of agreement with statetemen: "The unit content was arranged in a clear and logical manner"	Responses
strongly agree	19 (48 %)
agree	18 (45 %)
neither agree/disagree	2 (5 %)
disagree	1 (3 %)
strongly disagree	0

#### Question 7: The interface was easy to use.

Level of agreement with statetemen: "The interface was easy to use."	Responses
strongly agree	22 (55 %)
agree	187 (45 %)
neither agree/disagree	0
disagree	0
strongly disagree	0

#### Question 8: Please explain.

- Very nice to have good figures explaining the text, and also the examples make the topic easier to understand.
- It would be great to have more space / figures to explain the paragraphs

#### Question 9: The unit content was consistent with the learning objectives.

destion 5. The unit content was consistent with the learning objectives.		
Level of agreement with statetemen: "The unit content was consistent with the learning objectives."	Responses	
strongly agree	19 (48 %)	
agree	20 (50 %)	
neither agree/disagree	1 (3 %)	
disagree	0	
strongly disagree	0	



Question 10: This unit met my needs in the field of early life health.

,,	
Level of agreement with statetemen: "This unit met my needs in the field of early life health."	Responses
strongly agree	19 (48 %)
agree	16 (40 %)
neither agree/disagree	4 (10 %)
disagree	1 (3 %)
strongly disagree	0

Question 11: My confidence in counselling patients/using the newly acquired knowledge on understanding different types of applied epidemiology has increased as a result of this unit.

es of applica epidemiology has increased as a result of this	a a a a a a a a a a a a a a a a a a a
Level of agreement with statetemen: "My confidence in counselling patients/using the newly acquired knowledge on understanding different types of applied epidemiology has increased as a result of this unit."	Responses
strongly agree	13 (33 %)
agree	19 (48 %)
neither agree/disagree	7 (18 %)
disagree	1 (3 %)
strongly disagree	0

Question 12: Using this unit will lead to changing my perspectives and/or practice.

Level of agreement with statetemen: "Using this unit will lead to changing my perspectives and/or practice."	Responses
strongly agree	14 (35 %)
agree	15 (38 %)
neither agree/disagree	10 (25 %)
disagree	1 (3 %)
strongly disagree	0

#### Question 12a: Why/ why not?

I now have a better understanding of confounding

#### Question 12b: If yes, please give us examples?

(No answers)

Question 13: This unit helps me to inform or train other healthcare professionals

(u	destion 13. This unit helps the to inform of train other healthcare professionals.	
ı	Level of agreement with statetemen: "Using this unit will	Responses
	lead to changing my perspectives and/or practice."	
	strongly agree	13 (33 %)
	agree	17 (43 %)
	neither agree/disagree	8 (20 %)
	disagree	2 (5 %)
	strongly disagree	0

# Question 14: Overall how would you rate the unit? 1 being the minimum score (poor) and 10 being the maximum (excellent)

User Sr. No	Rating by user
1	7
2	7
3	10
4	5



5	7
6	9
7	10
8	8
9	1
10	9
11	10
12	5
13	5
14	1
15	8
16	10
17	10
18	10
19	10
20	7
21	9
22	5
23	10
24	5
25	7
26	8
27	8
28	8
29	7
30	9
31	9
32	10
34	10
35	10
36	8





37	8
38	9
39	8
40	8

Average: 7.80

#### Question 15: Based on this experience, I would complete another e-learning unit on ENeA Global.

destion 13. Based on this experience, I would complete another e-learning unit on liver Global.		
Level of agreement with statetemen: "Based on this experience, I would complete another e-learning unit on ENEA Global."	Responses	
strongly agree	20 (50 %)	
agree	19 (48 %)	
neither agree/disagree	1 (3 %)	
disagree	0	
strongly disagree	0	

Question 16: I would recommend this learning activity to others.

Level of agreement with statetemen: "I would recommend this learning activity to others".	Responses
strongly agree	19 (48 %)
agree	18 (45 %)
neither agree/disagree	3 (8 %)
disagree	0
strongly disagree	0

#### Question 17: This e-learning platform has improved my knowledge in the field of early nutrition.

Level of agreement with statetemen: "This e-learning platform has improved my knowledge in the field of early nutrition".	Responses
strongly agree	17 (43 %)
agree	15 (38 %)
neither agree/disagree	7 (18 %)
disagree	1 (3 %)
strongly disagree	0
Strongly disagree	l