RESEARCH TOOLS

ALL pages Translated by ChatGPT, approved by Ratchanont Thippimanporn, Wuttichai Khamna, Kannika Wiratchawa, and Thanapong Intharah

version 1, date 23 January 2025

What is NCDs Listener

1. A web application for extracting knowledge related to non-communicable diseases (NCDs) using data from public posts, presented in a dashboard format that allows users to customize or filter the information according to their preferences.
2. The web application includes a Generative AI component that assists in summarizing overall comments.

Research Objectives

- ✓ To develop a social media listening tool for non-communicable diseases (NCDs).

Objectives of This Evaluation

- ! To develop a social media listening tool for non-communicable diseases (NCDs).
- ! To develop data visualization and summarization using Generative AI based on user preferences.

SURVEY

version 1, date 23 January 2025

Survey Data Collection Procedures

Select a sample

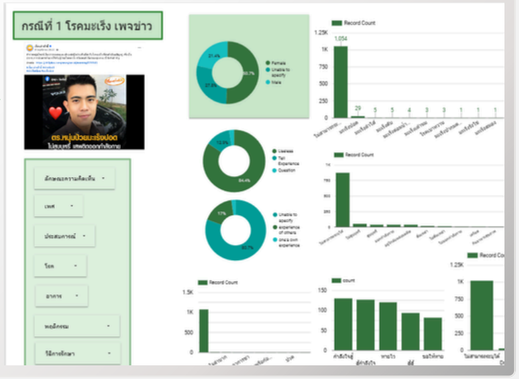
15 data scientists

15 general public

Explain

Explain the principles and objectives of NCDs Listener.

View Dashboard



Evaluate the dashboard

6 questions

Two questions per item

Data analysis

Mean score based on the Likert scale

View Gen AI Summary

ประเมิน Gen AI

12 questions

Three questions per item

Statistical analysis

Independent t-test

Each volunteer will receive a different sequence for viewing both the dashboards and the summaries generated by the LLM (Large Language Model).

version 1, date 23 January 2025

Dashboard for Evaluation

version 1, date 23 January 2025

CASE 1: CANCER NEWS PAGE

Dashboard Case 1: Cancer News Page

Case 1: Cancer News Page

Dashboard

Dashboard Case 1: Cancer News Page

Case 1: Cancer News Page

	Very Good	Good	Moderate	Poor	Very Poor
1 Does the dashboard provide relevant information regarding the post on cancer in the 'Morning News' ?					
2 Does the dashboard enhance your understanding of the current situation of cancer disease in the news page?					

Suggestions .....

https://www.facebook.com/MorningNewsTV3/posts/pfbid03pjHtzLPnML6x4GU9pvh4Dc8Cmn69Hd3opGcVJ1jKUoaTWs9HoWdys1WuawyWDacl?rdid=1sAmvQWoDYwDJWq4

Case 1: Cancer News Page

1 Sentence 1

- Most comments express concern and provide encouragement to lung cancer patients, focusing on offering support while also expressing concerns about the diverse causes of the disease, ranging from smoking and air pollution to other unclear factors. This reflects the uncertainty of life and advances in medical science. This online platform thus creates a supportive community where information is shared, characterized by encouragement and empathy.

Case 1: Cancer News Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about cancer to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of cancer, as perceived from the perspective of the news media?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

https://www.facebook.com/MorningNewsTV3/posts/pfbid03pjHtzLPnML6x4GU9pvh4Dc8Cmn69Hd3opGcVJ1jKUoaTWs9HoWdys1WuawyWDacl?rdid=1sAmvQWoDYwDJWq4

Case 1: Cancer News Page

Sentence 2

2

- From the provided message, it is observed that people are offering encouragement to lung cancer patients. The symptoms of the disease are not explicitly mentioned, but there is reference to treatments such as chemotherapy and radiation, with some patients being in stage 4. Other interesting information includes the causes of lung cancer that people speculate on, such as air pollution, cigarette smoke, diet, and even the COVID-19 vaccine (although this is merely speculation). Some patients who do not smoke have also been diagnosed with lung cancer. Furthermore, people comment that cancer is a disease that can affect anyone, whether they smoke or not. There is also a sense of encouragement and hope for treatment, as medical advancements are progressing.

Case 1: Cancer News Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about cancer to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of cancer, as perceived from the perspective of the news media?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

CASE 2: CANCER PATIENT'S POST

Dashboard Case 2: Cancer - Patient's Post

version 1, date 23 January 2025

Case 2: Cancer - Patient's Post

Dashboard

Dashboard Case 2: Cancer - Patient's Post

version 1, date 23 January 2025

Case 2: Cancer - Patient's Post

	Very Good	Good	Moderate	Poor	Very Poor
1 Does the dashboard provide relevant information regarding the post on cancer in the 'Pantip' ?					
2 Does the dashboard enhance your understanding of the current situation of cancer disease in the Patient's Post?					

Suggestions .....

https://www.facebook.com/pantipdotcom/posts/pfbid0KAnukjRbzTnNu89338DFSech2H1YLdAoCBT9cQZJd7qtXViPgwZUzGKGj6cXjxcol?rdid=mqnj2q1CrShOz6x7

Case 2: Cancer - Patient's Post

1 Sentence 1

- Most comments express sympathy and offer encouragement to Lida's family, focusing on providing support and hope for recovery. This reflects the creation of an online community characterized by compassion and emotional support for those facing difficulties.

Case 2: Cancer - Patient's Post

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about cancer to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of cancer, as perceived from the perspective of the patient's post?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

https://www.facebook.com/pantipdotcom/posts/pfbid0KAnukjRbzTnNu89338DFSech2H1YLdAoCBT9cQZJd7qtXViPgwZUzGKGj6cXjxcol?rdid=mqnj2q1CrShOz6x7

Case 2: Cancer - Patient's Post

2 Sentence 2

- The comments indicate that the poster's nephew was diagnosed with brain cancer. The initial symptoms were severe headaches and projectile vomiting, caused by the tumor pressing on the brain. Other symptoms may vary depending on the location of the tumor pressing on the brain's nerves. Diagnosis of the disease is thus quite challenging. Additionally, there were comments about a child suffering from leukemia. An interesting point is that the diagnosis of brain cancer in this case took a long time due to the nonspecific symptoms, and 3D eye scanning technology was used to assist in the diagnosis. Eventually, the poster's nephew passed away after battling the illness for an extended period. Most comments express condolences and offer support to the patient's family.

Case 2: Cancer - Patient's Post

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about cancer to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of cancer, as perceived from the perspective of the patient's post?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

CASE 3: HEART DISEASE – NEWS PAGE

Dashboard Case 3: Heart Disease - News Page

version 1, date 23 January 2025

Case 3: Heart Disease - News Page

Dashboard

Dashboard Case 3: Heart Disease - News Page

Case 3: Heart Disease - News Page

	Very Good	Good	Moderate	Poor	Very Poor
1 Does the dashboard provide relevant information regarding the post on heart disease in the ‘Drama-addict’?					
2 Does the dashboard enhance your understanding of the current situation of heart disease in the news page?					

Suggestions .....

https://www.facebook.com/DramaAdd/posts/pfbid0pZLs8jgt9M2dEz3vCsKuq2SLB7GVWFoX9VvKVoWY9Dep6tjbQqupdvGJBAY92GcNl?rdid=HBKHFkrNU2ZwG4NU#

Case 3: Heart Disease - News Page

1 Sentence 1

- From various comments, it is discussed that acute myocardial infarction (heart attack) has a variety of symptoms that are not specific. Symptoms include radiating pain in the left side of the back down to the arm, shortness of breath, dizziness, sweating, pain radiating from the shoulder blade to the mid-back, tightness in the left shoulder, severe back pain, and chest tightness. Some cases may not have chest pain at all. These symptoms may resemble other diseases, such as gastritis, pulmonary edema, or a perforated intestine, making diagnosis difficult and potentially delayed. Additionally, there is mention of coronary artery disease and acid reflux, which also share similar chest tightness symptoms with heart disease. An interesting point is that the symptoms of acute myocardial infarction vary from person to person, and severe back pain in the elderly may be a warning sign of heart disease. Therefore, one should be cautious and seek medical attention if unusual symptoms occur.

Case 3: Heart Disease - News Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about heart disease to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of heart disease, as perceived from the perspective of the news media?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

https://www.facebook.com/DramaAdd/posts/pfbid0pZLs8jgt9M2dEz3vCsKuq2SLB7GVWFoX9VvKVoWY9Dep6tjbQqupdvGJBAY92GcNl?rdid=HBKHFkrNU2ZwG4NU#

Case 3: Heart Disease - News Page

2

Sentence 2

- Most of the comments express concerns about back pain and other symptoms that may indicate heart disease, sharing personal experiences and those of close ones related to acute myocardial infarction. This reflects the uncertainty in diagnosing heart disease and the worry about symptoms that resemble other conditions. Additionally, there is a request for advice and the sharing of information to raise awareness about the symptoms of heart disease, such as palpitations, abnormal emotions, dizziness, vertigo, fatigue, fainting, sharp chest pain, stabbing chest pain, shortness of breath, an abnormal slow heart rate (40-50 beats per minute), and other symptoms such as excessive burping, which causes difficulty sleeping.

Case 3: Heart Disease - News Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about heart disease to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of heart disease, as perceived from the perspective of the news media?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

CASE 4: HEART DISEASE – MEDICAL PAGE

Dashboard Case 4: Heart Disease – Medical Page

version 1, date 23 January 2025

Case 4: Heart Disease – Medical Page

Dashboard

DashBoard Case 4: Heart Disease – Medical Page

Case 4: Heart Disease - Medical Page

	Very Good	Good	Moderate	Poor	Very Poor
1 Does the dashboard provide relevant information regarding the post on heart disease in the "Tham Mo Yong" page?					
2 Does the dashboard enhance your understanding of the current situation of heart disease in the Medical Page?					

Suggestions .....

https://www.facebook.com/thammhoryoung/posts/pfbid0QuZ9j2Tntu6hcF1TsBjAMTSD7c6hjKtTEJaEEePeEGbnXZibSPMhYovUun79Uzn9l?rdid=H76PhYHAaV1tKRs6

Case 4: Heart Disease – Medical Page

1 Sentence 1

- Based on various comments, it was found that many individuals experience problems related to cardiac arrhythmias. The symptoms reported include intermittent cardiac arrest (ranging from seconds to hours), abnormally rapid heartbeat, palpitations so intense they feel as if the heart is about to leap out, chest tightness, shortness of breath, trembling hands, emotional instability, vertigo, dizziness, easy fatigue, fainting, temporary unconsciousness, sharp chest pain, stabbing pain in the heart, shallow breathing, abnormally slow heart rate (40–50 beats per minute), and other symptoms such as excessive burping that interferes with sleep.

https://www.facebook.com/thammhoryoung/posts/pfbid0QuZ9j2Tntu6hcF1TsBjAMTSD7c6hjKtTEJaEEePeEGbnXZibSPMhYovUun79Uzn9l?rdid=H76PhYHAaV1tKRs6

1 Sentence 1 (continue)

Additional Noteworthy Information:

- In some cases, electrocardiogram (ECG) results appeared normal, yet symptoms persisted.
- Treatment may include blood thinners, medications to regulate heart rhythm, or cardiac ablation.
- Risk factors include insufficient rest, stress, sleep deprivation, caffeine intake, and heavy lifting.
- Appropriate exercise, a healthy diet, and stress management can help reduce risk and alleviate symptoms.
- In some individuals, symptoms subsided spontaneously following lifestyle modifications.
- The severity of this condition can vary; in some cases, it may be life-threatening. Medical consultation is essential for accurate diagnosis and appropriate treatment.

Note: This information is summarized from user comments and is not intended as medical advice.

Please consult a qualified healthcare professional for diagnosis and treatment.

Case 4: Heart Disease - Medical Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about heart disease to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of heart disease, as perceived from the perspective of the medical page?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

https://www.facebook.com/thammhoryoung/posts/pfbid0QuZ9j2Tntu6hcF1TsBjAMTSD7c6hjKtTEJaEEePeEGbnXZibSPMhYovUun79Uzn9l?rdid=H76PhYHAaV1tKRs6

กรณีที่ 4 โรคหัวใจที่เป็น เพจทางการแพทย์

2 Sentence 2

- Most of the comments reflect personal experiences and opinions regarding arrhythmia symptoms. They include individuals who have experienced the symptoms, are currently experiencing them, or are concerned about such symptoms. Some have already undergone treatment, while others have not received treatment or have been diagnosed as normal despite having symptoms. These interactions demonstrate the exchange of health-related concerns and information, along with mutual support and encouragement. This type of online interaction fosters a community where individuals with shared experiences of arrhythmia can share their stories, seek advice, and disseminate knowledge, thereby creating a supportive online environment.

Case 4: Heart Disease - Medical Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about heart disease to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of heart disease, as perceived from the perspective of the medical page?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

CASE 5: DIABETES – INFORMATIONAL MEDICAL PAGE

DashBoard Case 5: Diabetes – Informational Medical Page

version 1, date 23 January 2025

Case 5: Diabetes – Informational Medical Page

Dashboard

DashBoard Case 5: Diabetes – Informational Medical Page

Case 5: Diabetes – Informational Medical Page

	Very Good	Good	Moderate	Poor	Very Poor
1 Does the dashboard provide relevant information regarding the post on heart disease in the "Mor Yak Lao" page?					
2 Does the dashboard enhance your understanding of the current situation of diabetes in the Informational Medical Page?					

Suggestions .....

https://www.facebook.com/moryaklao/posts/pfbid02xDpvF8vMLYtbgJJtNWKgGhHnXueN9n6RrhCKcbAP7sLkvDqhdYBvfN4syxFjsa7Ml?rdid=VEFiUCg9jeaUvoqV

Case 5: Diabetes – Informational Medical Page

1 Sentence 1

- From the various comments, it was found that many people are concerned about their health, especially chronic diseases such as diabetes, high blood pressure, and high cholesterol. Symptoms observed include high blood sugar (ranging from 104 to 400 mg/dL), high blood pressure (systolic over 140, diastolic over 100), and high levels of bad cholesterol (LDL). Some patients experience headaches, dizziness, and fatigue, while others have complications from diabetes, such as kidney disease, heart disease, and numbness in the hands and feet. Additionally, there are concerns about being overweight and abdominal fat accumulation. Health management methods shared include exercise (swimming, running, cycling, skipping rope), dietary control (reducing sugar, fat, and salt intake), drinking plenty of water, and using medication to control the diseases. Health check-ups are also discussed, such as blood pressure measurement, blood sugar tests (both finger prick and long-term monitoring), and liver and kidney function tests. Other interesting information includes the benefits of nutritional therapy, the importance of regular health check-ups, and consuming a healthy diet, as well as concerns about the impact of hot weather on patients with chronic diseases.

Case 5: Diabetes – Informational Medical Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about diabetes to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of diabetes, as perceived from the perspective of Informational Medical Page?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

https://www.facebook.com/moryaklao/posts/pfbid02xDpvF8vMLYtbgJJtNWKgGhHnXueN9n6RrhCKcbAP7sLkvDqhdYBvfN4syxFjsa7Ml?rdid=VEFiUCg9jeaUvoqV

Case 5: Diabetes – Informational Medical Page

2 Sentence 2

- Most comments express gratitude for the health information provided, with some sharing the information further, inquiring about personal health issues, and seeking advice on health management. Some also express concern for the health of others and recommend dietary supplements. Overall, this online communication approach serves as a positive exchange of knowledge and experiences related to health, offering mutual support and encouragement.

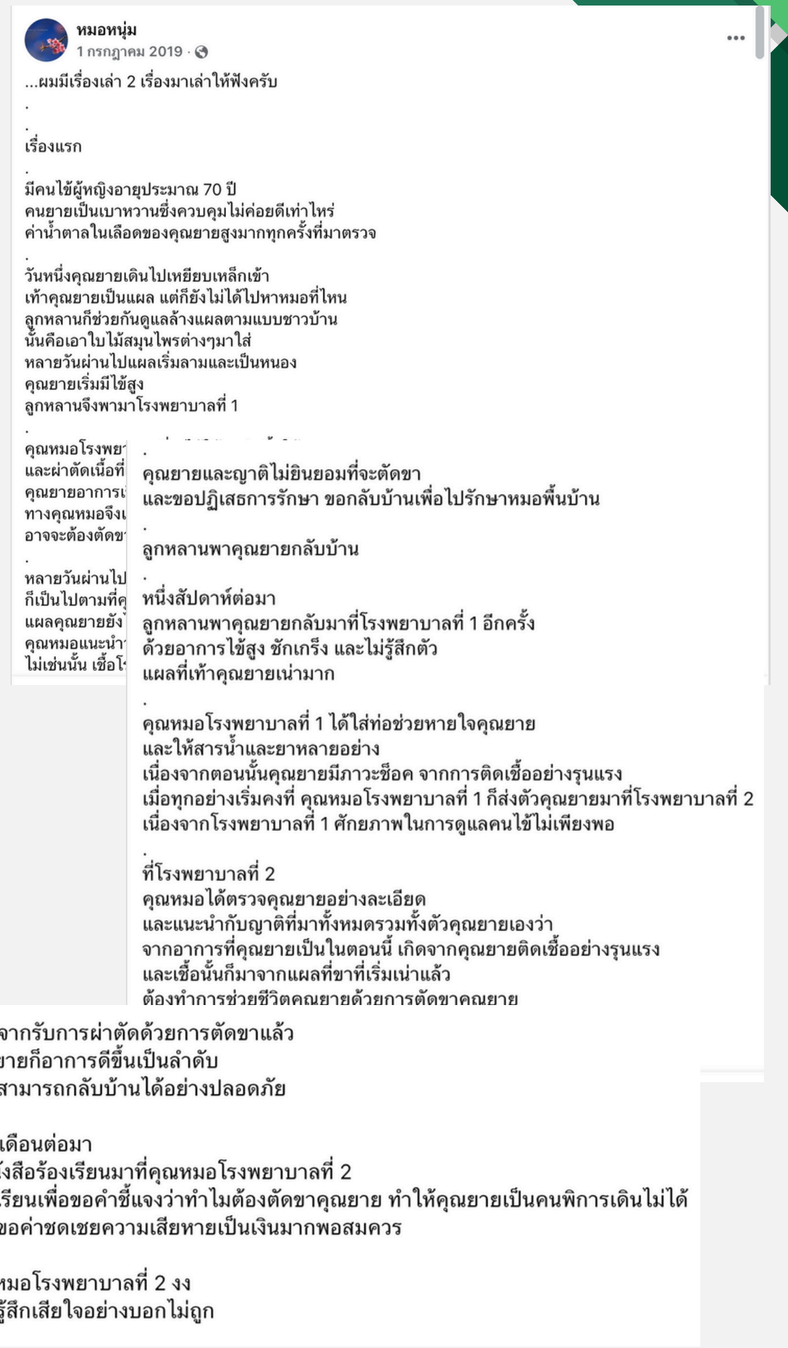
Case 5: Diabetes – Informational Medical Page

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about diabetes to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of diabetes, as perceived from the perspective of Informational Medical Page?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

CASE 6: DIABETES – A MEDICAL PAGE SHARING EXPERIENCES IN TREATING PATIENTS

Dashboard Case 6: Diabetes — A Medical Page Sharing Experiences in Treating Patients



หมอหนุ่ม
1 กรกฎาคม 2019 ·

...ผมมีเรื่องเล่า 2 เรื่องมาเล่าให้ฟังครับ

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เรื่องแรก

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มีคนไข้ผู้หญิงอายุประมาณ 70 ปี
คนยายเป็นเบาหวานซึ่งควบคุมไม่ค่อยดีเท่าไหร่
ค่าน้ำตาลในเลือดของคุณยายสูงมากทุกครั้งที่มาตรวจ

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วันหนึ่งคุณยายเดินไปเหยียบเหล็กเข้า
เท้าคุณยายเป็นแผล แต่ก็ยังไม่ได้ไปหาหมอที่ไหน
ลูกหลานก็ช่วยกันดูแลล้างแผลตามแบบชาวบ้าน
นั้นคือเอาใบไม้สมุนไพรต่างๆมาใส่
หลายวันผ่านไปแผลเริ่มลามและเป็นหนอง
คุณยายเริ่มมีไข้สูง
ลูกหลานจึงพามาโรงพยาบาลที่ 1

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คุณหมอโรงพย
และผ่าตัดเนื้อที่
คุณยายอาการ
ทางคุณหมอจึงแ
อาจจะต้องตัดข

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หลายวันผ่านไป
ก็เป็นไปตามที่คุ
แผลคุณยายยัง
คุณหมอแนะนำ
ไม่เช่นนั้น เชื้อโ

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คุณยายและญาติไม่ยินยอมที่จะตัดขา
และขอปฏิเสธการรักษา ขอกลับบ้านเพื่อไปรักษาหมอพื้นบ้าน

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ลูกหลานพาคุณยายกลับบ้าน

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หนึ่งสัปดาห์ต่อมา
ลูกหลานพาคุณยายกลับมาที่โรงพยาบาลที่ 1 อีกครั้ง
ด้วยอาการไข้สูง ชักเกร็ง และไม่รู้สึกตัว
แผลที่เท้าคุณยายเน่ามาก

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คุณหมอโรงพยาบาลที่ 1 ได้ใส่ท่อช่วยหายใจคุณยาย
และให้สารน้ำและยาหลายอย่าง
เนื่องจากตอนนั้นคุณยายมีภาวะช็อค จากการติดเชื้ออย่างรุนแรง
เมื่อทุกอย่างเริ่มคงที่ คุณหมอโรงพยาบาลที่ 1 ก็ส่งตัวคุณยายมาที่โรงพยาบาลที่ 2
เนื่องจากโรงพยาบาลที่ 1 ศักยภาพในการดูแลคนไข้ไม่เพียงพอ

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ที่โรงพยาบาลที่ 2
คุณหมอได้ตรวจคุณยายอย่างละเอียด
และแนะนำกับญาติที่มาทั้งหมดรวมทั้งตัวคุณยายเองว่า
จากอาการที่คุณยายเป็นในตอนนี้ เกิดจากคุณยายติดเชื้ออย่างรุนแรง
และเชื้อนั้นก็มาจากแผลที่ขาที่เริ่มเน่าแล้ว
ต้องทำการช่วยชีวิตคุณยายด้วยการตัดขาคุณยาย

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หลังจากรับการผ่าตัดด้วยการตัดขาแล้ว
คุณยายก็อาการดีขึ้นเป็นลำดับ
และสามารถกลับบ้านได้อย่างปลอดภัย

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หนึ่งเดือนต่อมา
มีหนังสือร้องเรียนมาที่คุณหมอโรงพยาบาลที่ 2
ร้องเรียนเพื่อขอคำชี้แจงว่าทำไมต้องตัดขาคุณยาย ทำให้คุณยายเป็นคนพิการเดินไม่ได้
และขอค่าชดเชยความเสียหายเป็นเงินมากพอสมควร

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คุณหมอโรงพยาบาลที่ 2 งง
และรู้สึกเสียใจอย่างบอกไม่ถูก

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version 1, date 23 January 2025

Case 6: Diabetes – A Medical Page Sharing Experiences in Treating Patients

Dashboard

Dashboard Case 6: Diabetes — A Medical Page Sharing Experiences in Treating Patients

version 1, date 23 January 2025

Case 6: Diabetes – A Medical Page Sharing Experiences in Treating Patients

	Very Good	Good	Moderate	Poor	Very Poor
1 Does the dashboard provide relevant information regarding the post on diabetes in the Mor Noom page?					
2 Does the dashboard enhance your understanding of the current situation of diabetes in the Informational Medical Page where the doctor shares patient treatment experiences?					

Suggestions .....

https://www.facebook.com/youngsurgeon35/posts/pfbid021mMv9nEMxsZqNvKXbFHJoZLXdiN5J88LJ8PwvPoZxysq5uvJfKR7cP4aatMMAwAxl?rdid=X1Hglb9wZLVqFVWs

Case 6: Diabetes – A Medical Page Sharing Experiences in Treating Patients

1 Sentence 1

- Most comments express sympathy and support for medical professionals who are being sued for damages by the patients' families, despite the fact that the consent for treatment had already been signed. This reflects concerns about an unfair litigation system and calls for stronger mechanisms to protect medical staff. Some comments disagree with the actions of the patients' families who filed lawsuits and criticize the patient care system that may lead to unnecessary litigation.

Case 6: Diabetes – A Medical Page Sharing Experiences in Treating Patients

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about diabetes to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of diabetes, as perceived from the perspective of the medical professional's experience in treating patients?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

version 1, date 23 January 2025

https://www.facebook.com/youngsurgeon35/posts/pfbid021mMv9nEMxsZqNvKXbFHJoZLXdiN5J88LJ8PwvPoZxysq5uvJfKR7cP4aatMMAwAxl?rdid=X1Hglb9wZLVqFVWs

Case 6: Diabetes – A Medical Page Sharing Experiences in Treating Patients

2 Sentence 2

- The text primarily discusses diabetes and its complications, such as the need for limb amputation due to diabetes. It also addresses the issue of suing doctors for damages after the patient's family has signed consent for surgery, which is an intriguing point. Furthermore, there are comments about the exhaustion of healthcare professionals, the healthcare system in Thailand, and concerns about access to medical care in the future.

Case 6: Diabetes – A Medical Page Sharing Experiences in Treating Patients

	Very Good	Good	Moderate	Poor	Very Poor
1 How effectively does this sentence communicate information about diabetes to the general public?					
2 To what extent does this sentence demonstrate an understanding of the societal impact of diabetes, as perceived from the perspective of the medical professional's experience in treating patients?					
3 How reasonable do you find this summary of opinions?					

Suggestions .....

version 1, date 23 January 2025