



HealthTalk

AI BASED CLINICAL REPORTING

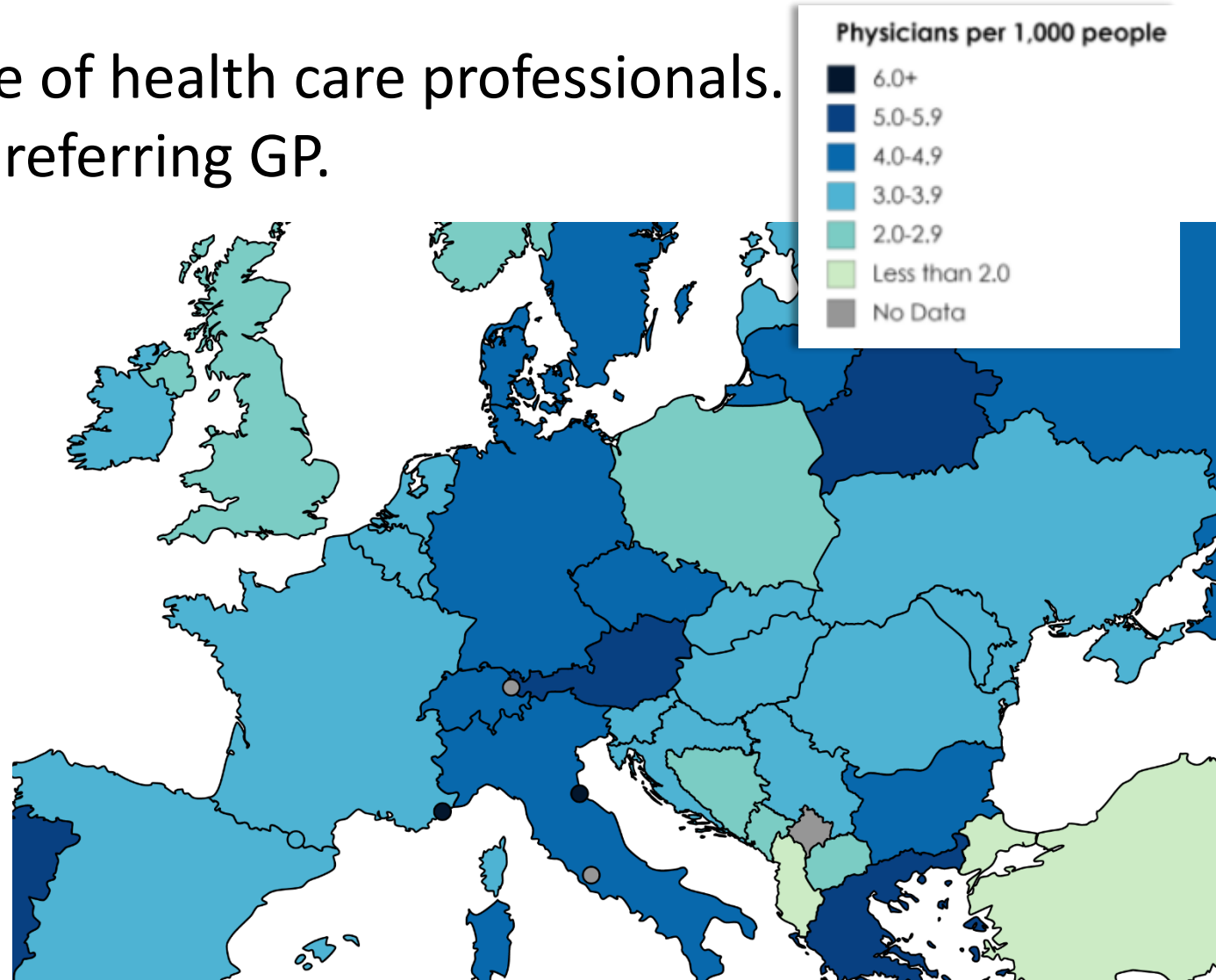
Azure marketplace

The problem **1**: No Doctors.

- All EU countries report a shortage of health care professionals.
- **7 million people** in France lack a referring GP.
- The UK, The Netherlands, France, **it concerns all of us.**

The research:

- <https://op.europa.eu/en/publication-detail/-/publication/22189434-395d-11eb-b27b-01aa75ed71a1/language-en>
- <https://www.statista.com/topics/3752/doctors-and-medical-practitioners-in-europe/#topicOverview>



The problem 2

- The doctor spends **30 to 60%** of his/her time on note-taking
- The Doctor is not much more than just a **bookkeeper with a side job**; taking care of patients
- **Languages**; not understanding the patient
- **Explain**; to the patient what to do in normal wording
- **Clinical notes**; all wordings should be put in the Electronic Healthcare systems using clinical vocabularies like Snomed, Loinc and ICD



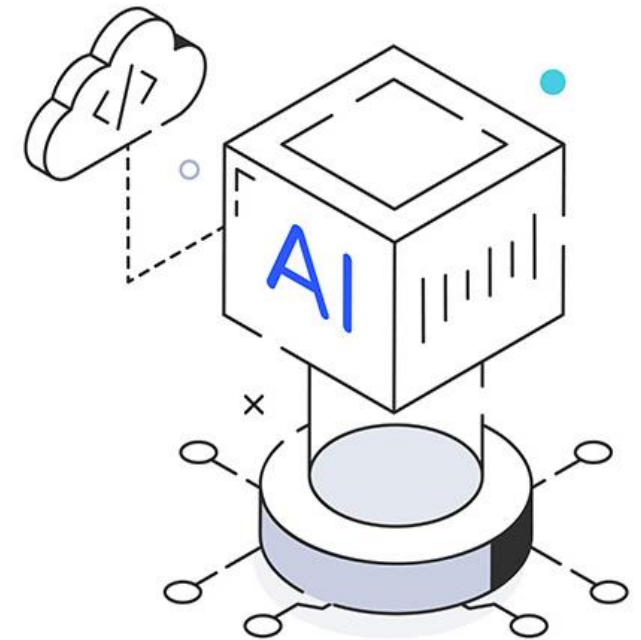
Welcome to HealthTalk

The AI-driven future of healthcare.

Imagine a world where physicians could **reclaim 30% of their day**, focusing on patient care rather than paperwork.

We harness AI to **digitize doctor-patient conversations** and automate reporting, seamlessly integrating clinical vocabularies like ICD, Snomed, and Loinc. As healthcare payment models grow intricate, data entry shouldn't hinder medical decisions.

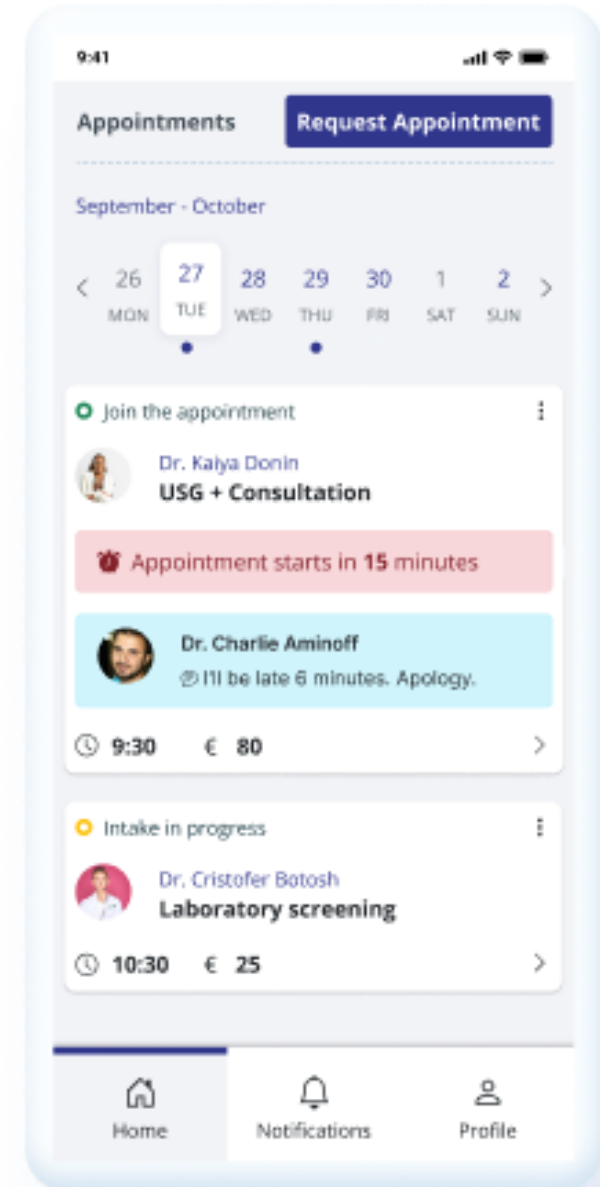
Our secure, cloud-based system streamlines documentation and amplifies patient revenue. Step into the future with HealthTalk.



Step 1.

Appointment Scheduling

- Patients can book appointments with doctors in affiliated hospitals.
- Get appointments from all Dutch Hospitals using MedMij
- Connect to your own Hospital agenda



Step 2.

Intake

- We perform an extended intake that consists of the following modules:
- Based on the Hospitals' clinical workflow
- Get Data from all 8.400 Dutch healthcare institutes.
- Get data from **any PGO** (Personal Health Environment)
- Standardised and clinical validated questionnaires (PROM)

9:41

Dr. Kaiya Donin
USG + Consultation

27 Tuesday 9:30 € 80

Waiting for approval

Complete your intake **Get data**

- ✓ Personal details
- ✓ Health history
- ✓ Allergies
- Medicines
- ✓ Current problem
- ✓ Measure biomarkers
- Questions

Submit Intake

• walking difficulty
• Muscle cramps

Patient's notes

- I feel pain on the left side days now. It is a bit swolle walk but I feel pain. It hap injury. I stepped into the v ground



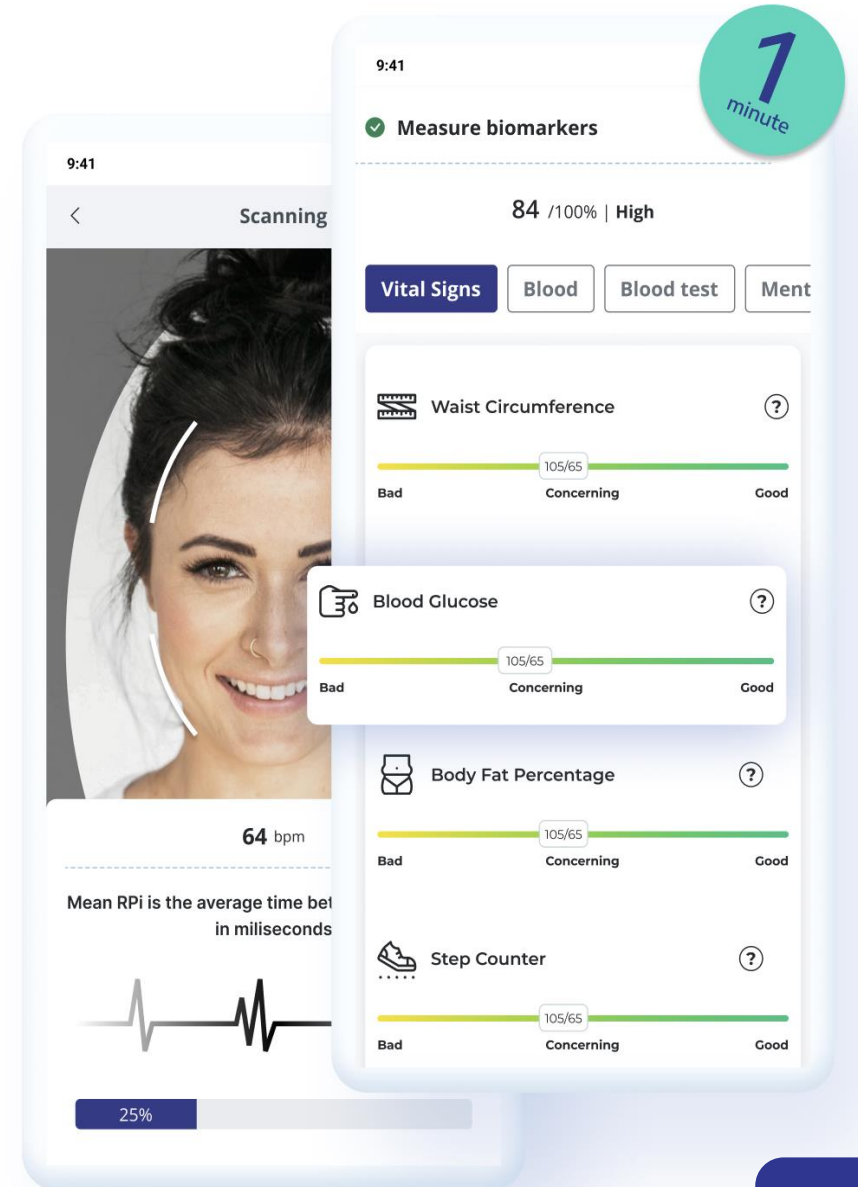
Step 3

Collect Biomarkers

We are able to collect various vital signs using the camera of your mobile **in just 1 minute** including:

- Blood pressure
- Heart rate
- Heart rate variability
- Oxygen saturation
- Breathing rate
- Sympathetic stress
- Parasympathetic activity
- Pulse-respiration quotient (PRQ)

Groundbreaking bloodless blood tests (under research) enable measuring **hemoglobins, hemoglobin A1C, and cholesterol total**. More additional blood tests coming soon



Step 4. Patient Summary

The screenshot shows a user interface for a patient summary. At the top left is the 'HealthTalk' logo with the tagline 'AI BASED CLINICAL REPORTING'. On the top right are navigation links for 'Home', 'Settings', 'Admin', and 'Profile'. Below the logo is a search bar labeled 'Name Surname'. The main content area is divided into two columns. The left column contains a patient profile card with fields for 'Age' (36 years old), 'Gender' (Male), 'Email' (name@email.com), and 'Phone' (-). Below this are expandable sections for 'Personal details', 'Health history', and 'Previous Consultations'. The 'Previous Consultations' section lists three consultations with details like the doctor's name (Dr. Ella Smith), date, time, and score, along with a 'Delete Consultation' button for each. The right column contains an 'Intake questionnaire' section with a 'Selected pain point' (Foot), 'Symptoms' (Foot pain, Walking difficulty, Muscle cramps), and 'Patient's notes' (I feel pain on the left side of my foot for 4 days now...). To the right of the questionnaire is a human body diagram with the left foot highlighted in red.

Based on all the user generated input, or from other Doctors, we will generate a simple and understandable summary for the Doctor just before the meeting



Step 5. Doctors Consultation

The screenshot shows the HealthTalk interface for a "Face to face consult". At the top, there's a header with the HealthTalk logo and navigation links (Home, Settings, Admin, Profile). Below that, a patient information section includes fields for Name Surname, Age, Gender, Email, Phone, and Allergies, along with an "Add patient info" button. A notification states: "You can also add patient information during consult conversation." The main consultation area is titled "Face to face consult" and includes a "Back" button, a "USG + Consultation" label, and controls for "Translate", "Pause", and "End call". A timer indicates "Consultation in progress 00:45:34" with a "Duration planned: 1 hour". The chat window shows a transcript of a conversation with UMLS-coded terms like "Runs" (UMLS: C0600140) and "depressive symptoms" (UMLS: C0086132). On the right, there's a "Mental Status Exam" section with a checklist of items like "Reason for referral", "Informed consent...", "Patient's request for help (intake phase)", "He/she would like...", "Asked to client/e /part...", "Complaints anamnesis", "Major complaints?", "Depression", "Have you been feeling...", "If so: Has this ever tak...", "If so: Have these perio...", "Manie", and "Are there periods that...". Below this is a PHQ-9 questionnaire section with a progress bar at 110/78 and a "Patient doesn't know" button. At the bottom right, there's a "Perceived Stress Scale" section with a "Dictate" button.

Provide a mechanism for each healthcare provider and their patients to perform automated clinical note-taking.

Speech-to-text into clinical vocabularies based on MeSh and UMLS coding systems.

Automatically we move the spoken text into the SOEP (Subjective, Objective, Evaluate, and Plan) model



Step 6. Automated Reporting

This letter or report will be sent to the healthcare provider (in technical format) to **include in their Health Records** systems or to the patient.

The screenshot displays the HealthTalk AI-based clinical reporting interface. At the top, the logo for HealthTalk AI-BASED CLINICAL REPORTING is visible, along with navigation links for Home, Settings, Admin, and Profile. The patient's name, Pieter Lastname, is shown in a search bar. Below this, a patient profile card lists details: Age (36 years old, 4 Jul 1988), Gender (Male), Email (pieter_l@email.com), and Phone (-). Allergies are listed as Koemelk donec a dui et / dui fringilla fenoxymethyl / dui fringilla fenoxymethyl and At vero eos et accusamus / et justo odio dignissimos / et justo odio dignissimos. Buttons for 'Go to patient record' and 'Show full intake info' are present.

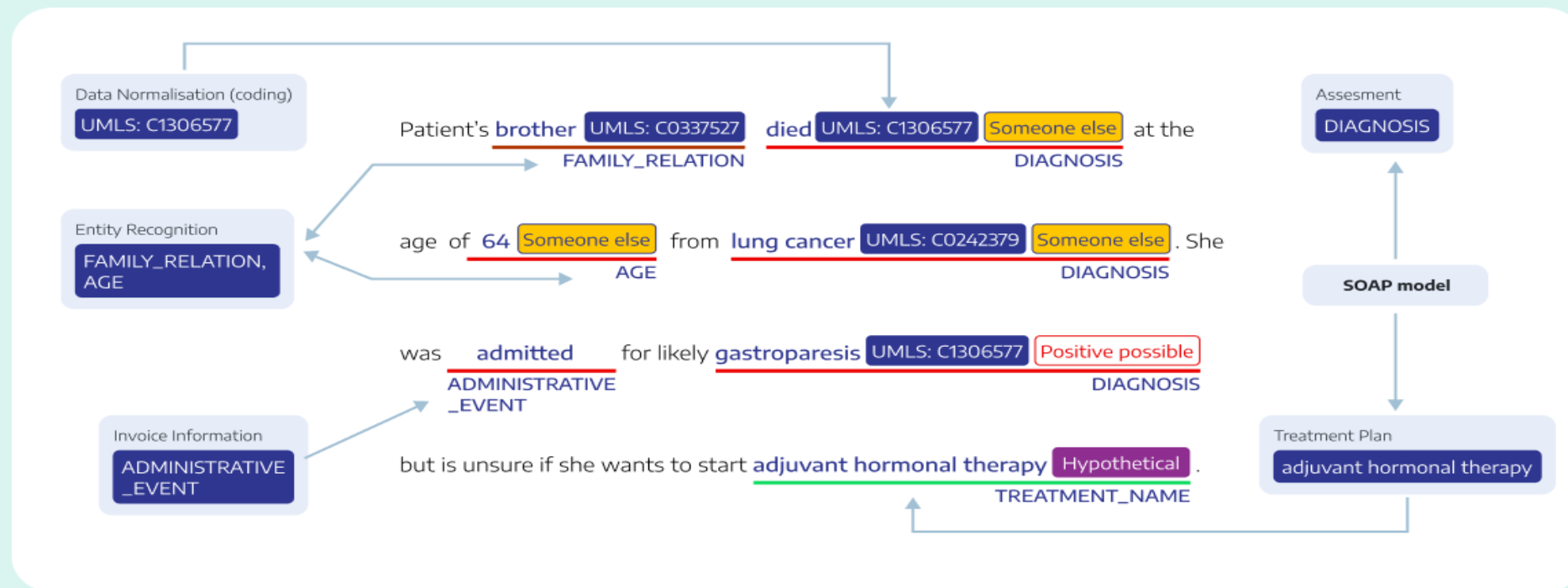
The main section is titled 'Face to face consult' and shows a consultation summary for 'USG + Consultation' on '27 Tuesday' at '9:30' for a duration of '€ 80'. A 'Rejoin Call' button and a 'Send letter' button are available. The consultation transcript shows a conversation where the patient asks about their condition, and the doctor provides information about their symptoms and history. The transcript includes the following text: 'Yes please. Do you want to know that now I got Pieter in front of me. Ja klopt. Is that right? course the They are going to ask some more about it then yes, then I want to start Unless you find it was nice to be able to get started a bit of a mood especially. **Runs** UMLS: C0600140 into yes **depressive symptoms** UMLS: C0086132 mood complaints. Could you tell us a bit more about that? Yes, yes, I actually think it's very strange, because it doesn't suit me at all. But not for a year now. And yes, I find it very difficult. I'm a teacher at Well, that's pretty much it, but I'm

On the right side, there are several diagnostic suggestions with a 'Probability score: 41%' and a link to the UMLS code: 'Relationship problems' (UMLS: C0086132), 'Depression', and 'Complaints Anamnesis'. A 'Mental Status Exam' dropdown menu is also visible.



Step 6a.

Based on the **clinical vocabularies** that will be the input for patient and referral letters that could either be **created automatically or dictated** by the healthcare provider.



Next.

Create your own clinical (chat)bot.

We are working (hard) on adding chat and bot technology to our stack.

Send personalised updates to the user each day.

The screenshot shows a web browser window at <https://healthtalk.ai>. The page title is "Create new template" and it features a "Create teplate" button in the top right. The main content is divided into two panels: "Chatbot" and "Chatbot settings".

The "Chatbot" panel displays a preview of a chatbot named "Motivational Coach AI Chatbot". It shows a message history with a system message: "Greeting generated from prompt" and a user message: "This is an automated chatbot response. Learn more" (timestamped 10:24). A user input field contains "How can I help you today" (timestamped 10:25).

The "Chatbot settings" panel includes a "Save changes" button and tabs for "Content", "Data", and "Actions". Under the "Content" tab, there are sections for "Greetings" (with a dropdown set to "Static" and a text input "How can I help you today?"), "Disclosure message" (with a text input containing a disclaimer and a link to a legal page), "Direction" (with a text input "Tell your bot how to communicate"), and "Appearance" (with a text input "Define how and where your bot appears").



Next. Forms on steroids.

AI and NLP based
Questionnaire builder for any
FHIR based backend.

The screenshot displays the HealthTalk AI-based clinical reporting interface. The top navigation bar includes the HealthTalk logo (AI BASED CLINICAL REPORTING), a 'Home' link, and a 'Settings' link. The main header shows a 'Back' button, the title 'AI template - Questionnaires', and buttons for 'Duplicate', 'Cancel', and 'Save ch'. The interface is divided into three main sections:

- Preview - chatbot:** A central area showing a flowchart of the questionnaire structure. It starts with a 'Group' component (1) which branches into two paths: one leading to a 'Text' component (1.1) and another leading to a 'Choice' component (2). The 'Choice' component (2) further branches into a 'Copy response' component (2.1).
- Components:** A vertical sidebar on the left lists various components available for use: Group, Text answer, Information text, Attachment, Recipient list, Recipient component, Confirmation, Choice, Date, Time, Number, and Quantity.
- Configuration Panel:** On the right, there are dropdown menus for 'AI template - Questionnaires' and 'Cardiologist'. Below these are tabs for 'Template', 'Direction', 'Content', 'Data', and 'Actions'. The 'Direction' tab is active, showing a 'Questioner' section with a 'Tell your bot how to communicate' instruction. It includes a 'Template key name' field with the value '[Motivational_Coach_AI_Chatbot]', a 'Specify your line of thinking' text area, and an 'Action generator' section with 'Key' and 'Value' fields. The 'Key' field contains '[example]' and the 'Value' field contains '[Briefly mention any relevant test results and their implications for your diagnosis and treatment plan.]'.

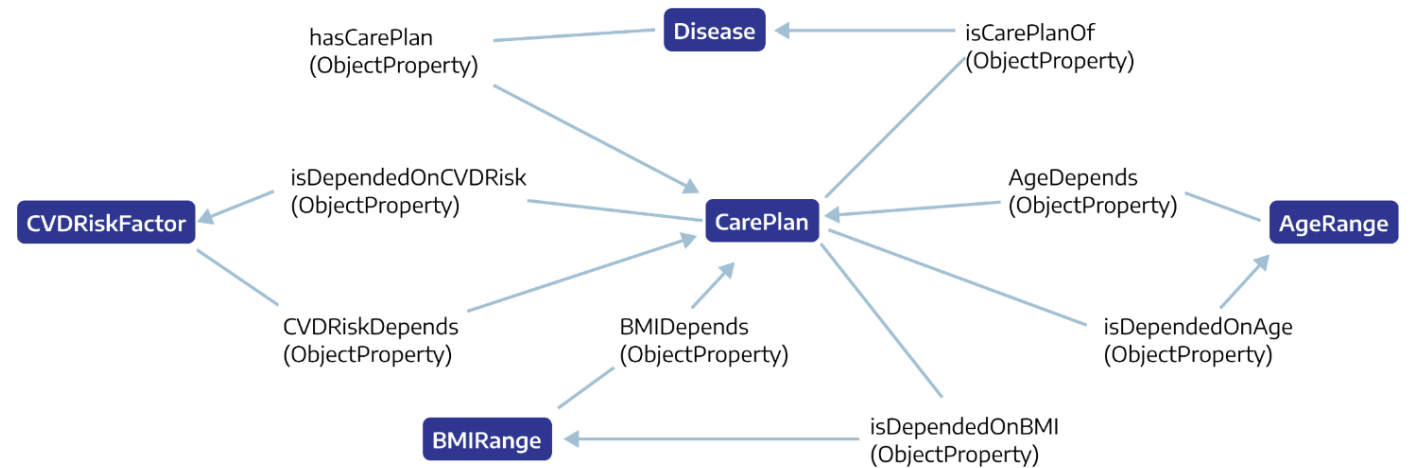


Next.

Automated Clinical Decision support.

(In research phase)

Based on the **clinical vocabularies** we provide a query on PUBmed SUBmed to give the most relevant papers for the best Treatment suggestion.



Chatbot builder on top of each FHIR based backend

The screenshot shows the HealthTalk AI Chatbot builder interface. The top navigation bar includes the HealthTalk logo (AI BASED CLINICAL REPORTING), Home, Settings, and Profile links. The main title is "Motivational Coach AI Chatbot" with "Back", "Cancel", and "Save changes" buttons.

Preview - chatbot

Motivational Coach AI Chatbot Saved key values

[Greeting generated from prompt]

This is an automated chatbot response. Learn more.

How can I help you today?

Bot for chat (ChatBot) **Cardiologist** **Language**

Direction Content Data Actions

Direction
Tell your bot how to communicate

Template key name
[Motivational_Coach_AI_Chatbot]

Specify your line of thinking

Please specify your line of thinking or topic clearly in the input field to enable the bot to provide you with the most accurate and helpful responses.

Action generator

Key
[example]

Value
Briefly mention any relevant test results and their implications for your diagnosis and treatment plan.

Source
Transcript

Add new key

Action you can use
Search action tag

Key	Value	Source
[Test_Results]	Briefly mention any relevant test results and their implications for your diagnosis and treatment plan	patient history
[Diagnosis]	Provide a clear and concise explanation of the diagnosis or condition you discussed with the patient	patient history

The group of certified companies



veilig online uitwisselen
van gezondheidsgegevens



eHealth Platform as a Service

Certified eHealth platform that serves as a boiler plate for other spin-off companies. We have a team of 20 developers.

www.medrecord.io



Data Ownership

One of the 9 Dutch PGO's that is used to collect your medical data from healthcare institutions.

www.medsafe.io



P2P diabetes platform

Lifestyle intervention for Diabetes type II management.

www.clubdiabetes.nl



AI speech-to-text

AI-based speech-to-text into clinical reporting.

www.healthtalk.ai





HealthTalk

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Questions?

Jan-Marc Verlinden

Chief Futurist

jan-marc@healthtalk.ai

Nanno van der Laan

Business manager

nanno@healthtalk.ai