Health Cloud Implementation Guide

Salesforce, Spring '17

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Deliver Collaborative, Connected Patient Care with Health Cloud

Delivering outstanding patient care means more than simply managing your patients' information and healthcare events. Health Cloud reinvents the way that care coordinators engage with patients. The Health Cloud console gives you a consolidated view of critical patient records, access to a patient's care team, and the tools to bring it all together to improve healthcare outcomes. You create a strong, collaborative relationship with patients and caregivers to assist your patients' journey to better health.

Excellent care requires a complete picture of the data coming from electronic health record (EHR) systems to guide smart and efficient decisions. With Health Cloud, you have all the tools to manage your patients with greater efficiency. The Health Cloud console includes:

- Comprehensive snapshot of vital patient data from EHRs
- Working view of your prioritized tasks related to all your patients
- Care timelines that lets you see a representation of patient history events, like appointments, prescriptions, conditions, and other care-related encounters
- Customized care plans that set measurable goals with tasks that can be assigned to the patient

When you configure Salesforce Communities, you also have a private patient community that unites professional and personal caregivers in a collaborative network that drives care plan compliance. You can assign ownership of health tasks to members of the care team, including other health professionals, patients, and family members. You can exchange secure, private messaging between you, the patient, and members of the community—and they can access those messages on any device.

Get to Know the Health Cloud Data Model

Health Cloud supports the standard Salesforce data model. You can map clinical data from a source EHR system to Health Cloud objects and fields that hold patient and engagement data.

Patient and Individual Data Model

Health Cloud uses the individual model to address the different roles a person can have in relation to an organization. In one context, an individual is a patient; in another, a caregiver; and in another, an employee. The Health Cloud patient and individual data model is based on a unified object view consisting of fields and attributes from two standard Salesforce business objects: Account and Contact. Both objects are a part of the standard Salesforce data model, and within Health Cloud they are connected through a common field: `Individual ID`. When a patient is created in the system, both an account and a contact record are created and linked through the Individual ID field.

The Account object supports the transactions through the Case object to manage the care plan, its tasks, and the care team that supports the patient. The Contact object supports the communication between the patient, the coordinator, and the care team when Communities is enabled.
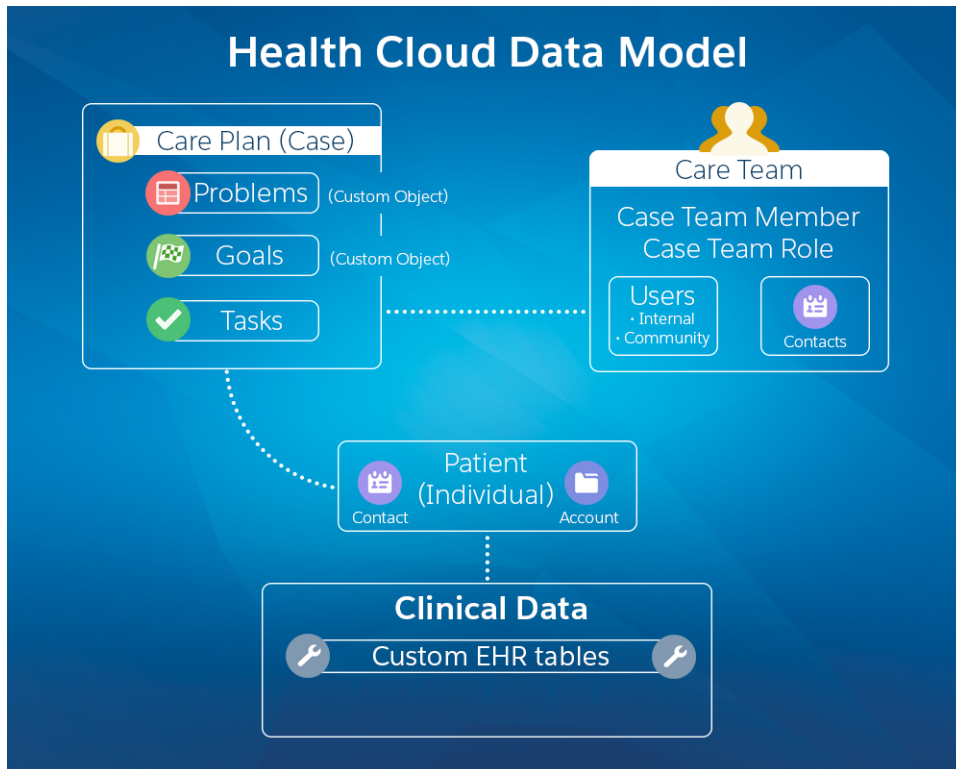
All patient-specific information, including patient medical records, is tied to the account record. Because the contact record doesn't contain clinical information, a patient can collaborate with the external care team without them seeing the patient's medical records. Together, the account and contact records comprise the information that supports the patient, and are connected to the care plan, EHR data, and the members of the entire care team.

Health Cloud uses the following standard and custom objects to manage patient data.

- **Account**—In Health Cloud, the account record represents people instead of a business or an organization. Through the individual record type, it is also linked to the contact records. Accounts supports the transactions that occur related to the patient. So not only is the patient contact record connected through the Individual ID, but the contacts and users that represent caregivers or external healthcare providers are associated with the account through the patient care plan (case record).

- **Contact**—In the Salesforce data model, contacts are the people associated with the patient, such as family members and specialists who are outside of your organization. A contact must be related to an account. When you set up and use Salesforce Communities, the Contact object supports communication within the private patient community. Care team members are added as either external contacts without community access or as community users *and* contacts, which gives them community access.

- **User**—Health Cloud includes internal Salesforce users and community users. Each user type has different access to records and functions. Internal users have access to patient data, when granted. Community users don't have access to patient data.

- **Case Team Member**—The Case Team Membership object represents a patient care team member who is part of the team that works on tasks in the patient's care plan. In Health Cloud, care team members can be family members and healthcare providers from outside of your organization. They can also be internal Salesforce users, like the primary care physician. When Salesforce Communities is enabled, care team members with access to the community use Case Feed to collaborate around the patient and the care plan. Care team members who are only contacts can't log in to Salesforce, so they don't have access to Chatter in the case feed or to the patient care plan.

- **Case Team Role**—The Case Team Role object represents a role for a member of the patient care team, such as Caregiver or Physiotherapist. Care coordinators assign roles when they add a member to the private patient community. The case team role also controls access to the case and the care plan, and controls visibility of the user in the community.

- **Case**— In Health Cloud, the care plan is associated with the case record. The case permission controls access to the elements of the care plan, to the care team (Case Team), and to the communication within the patient's community. All care team members are associated with the patient's contact record through the Case object.
- **Problems**—Each care plan has a list of clinical or non-clinical health issues that must be addressed. The conditions, problems, concerns, and diagnoses that are managed and mitigated by this plan are represented in the Care Plan Problem custom object.
- **Goals**—Represents the intended objectives of carrying out a care plan.
- **Task**—Represents an activity, such as making a phone call, completing a survey, attending a medical appointment, or other to-do items. Tasks can be directly related to a goal on the care plan, or they can be unrelated to a specific problem or goal.
- **EHR Clinical Data Objects**—The custom objects that hold patient data that comes from the EHR system of record. For example, EhrCondition__c represents detailed information about conditions, problems, and diagnoses recognized by a clinician.

Clinical Data Model

Clinical data that comes from EHR or other clinical systems is critical to the planning, execution, and management of coordinated care plans for patients. Clinical data can be integrated with Salesforce using several standard APIs, to map messages from EHR systems into Health Cloud objects and fields. These objects and fields closely resemble the HL7® FHIR® standard.

Because the Health Cloud clinical data model is similar to FHIR® standard, it enables easier and more straightforward clinical data integration from other source systems. When devising an implementation strategy, you or your integration partner map messages from the EHR system to the correct Health Cloud object. Data is replicated into the clinical data model with read-only access. Data that originates in the EHR or other clinical systems, Health Cloud is view-only, so the source system remains the system of record.

You can take a deep dive into the Health Cloud data model by using Schema Builder. Schema Builder provides details, such as the field values, required fields, and how objects are related, by displaying lookup and master-detail relationships. You can view the fields and relationships for both standard and custom objects. Schema Builder is enabled by default and lets you add the following to your schema:

- Custom objects
- Lookup relationships
- Master-detail relationships
- All custom fields, except geolocation

To access Schema Builder, from Setup, enter `schema` in the `Quick Find` box.

Understand Individual, Patient, and Candidate Patient Records

A Health Cloud patient is associated with several different records types.

The following sections give you a brief introduction to the primary records that comprise a patient.

Individual

An individual is composed of both an account and a contact record that each use the individual record type. These records point to each other (the account has a primary contact lookup field). Using an individual record type with only a contact or only an account record is invalid.

Patient

A patient is an individual (account and contact) that also has a care plan (case) ID in the Care Plan lookup field on the account record. Also, the patient must be part of a care team (case team) in the role of patient. This relationship can be made to the contact record of

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the patient or the community user record, if the patient is enabled for communities. Usually, a Patient also has an EHR Patient record that points to the account record of the patient.

Lead

You can turn existing Salesforce leads into patients because Health Cloud includes custom fields on the Lead object. These additional fields capture important patient information like a person's medical record number, and the name of the patient's care coordinator.

Candidate Patient

A candidate patient is simply a row of data on the Candidate Patient object. Candidate patients can be converted into patients using the conversion process in the Health Cloud console. The process creates the records and relationships for the individual and patient records, so that the patient is available in the console.

THE BIG PICTURE FOR SETTING UP HEALTH CLOUD

It's time to get rolling! This guide shows you how to quickly set up the Health Cloud console that lets care coordinators manage their patients and provide excellent care.

Health Cloud is a managed package, installed on top of Salesforce Enterprise Edition, Performance, or Unlimited editions.

> ✎ Note: Salesforce Communities provides the collaboration support for Health Cloud. Some of the collaborative features aren't available until you enable Salesforce Communities and create a private patient community.

IN THIS SECTION:

Verify That Contacts to Multiple Accounts Is Enabled (Required)
The Contacts to Multiple Accounts feature must be enabled to support the Health Cloud data model.

Verify That Chatter Is Enabled (Required)
Chatter must be enabled before you install Health Cloud.

Health Cloud Packages
Health Cloud functionality is available through several packages. The managed package delivers most of the features, while the unmanaged extension package delivers functionality to convert Lead records to Patient records. You can also download and install the Wave for Health Cloud Risk Stratification package to administrators view dashboards of at-risk patients.

Define Your Health Cloud Domain Name (Required)
Sign up for your organization's custom domain name.

Configure Profiles in Health Cloud (Required)
To have access to the fields and records in Health Cloud, you need to make the following additions to the profiles you assign to users.

Set Field Access (Required)
Field permissions specify the access level for each field in an object. Whether you're using profiles or permission sets to control access to data in Health Cloud, make sure that users have access to these standard fields.

Add New Internal Users (Required)
You can add internal Salesforce users one at a time or in batches of up to 10 users.

Control User Access with Permission Sets (Required)
A permission set is a collection of settings and permissions that provide access to various records and functions in Health Cloud. Many users need a combination of these permissions depending on their roles and their interactions with patients and their records.

Control Access to Patient Lists (Required)
Use sharing settings to control access to patient lists.

Create Roles for Care Team Members (Required)
Care team member roles define the access that members have to information in the care plan.

Customize the Health Cloud Apps (Optional)
You can change some of the properties of the Health Cloud Apps in your organization. For example, you can add the Knowledge widget so that care coordinators can see articles and protocols from the console footer. You can also do things like add your company's logo, change the color of page elements, and enable keyboard shortcuts in the Health Cloud console.

Set Up Lead to Patient Conversion (Optional)

Your company can use existing Salesforce Lead records to create the Patient records that are used in Health Cloud.

Provide Easy Access to Protocols and Articles (Optional)

Salesforce Knowledge lets you easily create and manage content and make it available to other healthcare professionals and to the patient and care team members.

Switch On Salesforce Communities (Optional)

If you're extending the Health Cloud console with Communities, the first step in setting up a private community is to flip the switch to enable Salesforce Communities.

How Salesforce Shield Protects Your Data

Health Cloud now fully supports Salesforce Shield—allowing you to easily comply with regulations on storing sensitive PHI data. New features like Event Monitoring and Platform Encryption allow you to monitor usage, prevent malicious activity, and protect data at rest while allowing full functionality.

Verify That Contacts to Multiple Accounts Is Enabled (Required)

The Contacts to Multiple Accounts feature must be enabled to support the Health Cloud data model.

1. From Setup, enter `Accounts` in the `Quick Find` box.

2. Verify that the Setup menu under Accounts includes Account Contact Relationships.

Build
- **Customize**
  - **Accounts**
    - Fields
    - Related Lookup Filters
    - Validation Rules
    - Triggers
    - Partner Roles
    - Contact Roles on Accounts
    - Page Layouts
    - Field Sets
    - Compact Layouts
    - Search Layouts
    - Buttons, Links, and Actions
    - Record Types
    - Limits
    - Account Teams
    - Account Team Member Layout
    - Account Settings
    - **Account Contact Relationships**
      - Page Layouts
      - Fields
      - Compact Layouts
      - Validation Rules
      - Triggers
      - Buttons, Links, and Actions New!

If you see the options, then Contacts to Multiple Accounts is enabled in your org.

3. If you don't see these items, enter `Account Settings` in the `Quick Find` box, then select **Account Settings**.

4. Navigate to the Contacts to Multiple Accounts Setting section of the page. If `Allow users to relate a contact to multiple accounts` is not selected, enable it.

5. Then check the Setup menu again for Account Contact Relationships.

Verify That Chatter Is Enabled (Required)

Chatter must be enabled before you install Health Cloud.

1. From Setup, enter `Chatter` in the `Quick Find` box, then select **Chatter Settings**.

2. Verify that `Enable` is selected under Chatter Settings.

Health Cloud Packages

Health Cloud functionality is available through several packages. The managed package delivers most of the features, while the unmanaged extension package delivers functionality to convert Lead records to Patient records. You can also download and install the Wave for Health Cloud Risk Stratification package to administrators view dashboards of at-risk patients.

See *Install the Wave Risk Stratification Package* for instructions on downloading and installing the package.

IN THIS SECTION:

Install the Health Cloud Package in Your Org (Required)

Install the Health Cloud managed package in your org so that you can begin implementing Health Cloud for your care coordinators.

Install the Health Cloud Unmanaged Package Extension (Optional)

The unmanaged extension package delivers the process that lets care coordinators convert Lead records into Patient records.

Install the Health Cloud Package in Your Org (Required)

Install the Health Cloud managed package in your org so that you can begin implementing Health Cloud for your care coordinators.

1. Paste the URL for the Health Cloud package into the browser navigation bar and press **Enter**.

You can find the package download URL in the Terms and Conditions section of your contract.

2. Log in as a system administrator.

3. Click **Install**. You'll see a message that describes the progress and a confirmation message after the installation is complete.

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>
> To install packages:
> - "Download AppExchange Packages"

Install the Health Cloud Unmanaged Package Extension (Optional)

The unmanaged extension package delivers the process that lets care coordinators convert Lead records into Patient records.

After you've installed the managed package, install the unmanaged package to enable the process that care coordinators use to convert Lead records to Patient records. If you don't want to install the package, you can always create a conversion process in Process Builder.

1. Paste the following URL for the package into your browser navigation bar: http://industries.force.com/healthcloudextension.

2. Press **Enter**.

3. Enter your Salesforce password.

4. Select **Install**.

   If it takes a while, you can select **Done** and move on to do something else while installation finishes. Check your email for confirmation that installation was successful.

5. Verify installation of the unmanaged package.

   a. From Setup, enter `Installed Packages` in the `Quick Find` box, then select **Installed Packages.**

   b. Look for `HealthCloudExtensions`.

Define Your Health Cloud Domain Name (Required)

Sign up for your organization's custom domain name.

Start setting up your custom domain name by finding a domain name unique to your organization and signing up for it.

1. From Setup, enter `My Domain` in the `Quick Find` box, then select **My Domain**.

2. Enter the subdomain name you want to use within the sample URL. For example, a company called Universal Containers wants to use the subdomain `universalcontainers`. The company's login URL would be `https://universalcontainers.my.salesforce.com/`. You can use up to 40 characters.

   You can't use these reserved words for subdomains:

   - www
   - salesforce
   - heroku

   And, you can't start the domain name with:

   - root
   - status

3. Click **Check Availability**. If your name is already taken, choose a different one.

4. Click **Terms and Conditions** to review your agreement, then select the checkbox.

5. Click **Register Domain**.

6. You receive an email when your domain name is ready for testing. (It can take from 30 seconds to 24 hours.)

Your domain isn't rolled out until you've tested and deployed it.

SEE ALSO:

   Salesforce Help: Test and Deploy Your New My Domain Subdomain

Configure Profiles in Health Cloud (Required)

To have access to the fields and records in Health Cloud, you need to make the following additions to the profiles you assign to users.

Note: To be able to set up the Health Cloud console, the you must make these additions to the System Administrator profile, as well.

1. From Setup, enter `Profiles` in the `Quick Find` box, then select **Profiles**.

2. Select a profile to configure.

Assign your users standard Salesforce profiles. If you need custom profiles to extend visibility and access to certain objects, use a standard profile, clone it, and edit it to meet your organization's needs.

3. Add or enable the following items for the profile.

Profile Page Section	Name
Page Layouts	Account (Individual record type): Patient layout
	Case (Care Plan record type): Care Plan layout
	Contact (Individual record type): Patient layout
	Lead (Patient record type): Patient layout
	Task (Care Plan Task record type): Health Task layout
Record Types	Account: Business, Household, Individual (Default)
	Cases: CarePlan
	Contacts: Business, Individual (Default)
	Lead: Patient
	Tasks: Care Plan Task

4. Click **Save**.

SEE ALSO:

Salesforce Help: Assign Record Types to Profiles in the Original Profile User Interface

Salesforce Help: Enable and Disable the Translation Workbench

Set Field Access (Required)

Field permissions specify the access level for each field in an object. Whether you're using profiles or permission sets to control access to data in Health Cloud, make sure that users have access to these standard fields.

1. Make sure that the following fields have Edit permission:

Object	Field Label
Accounts	• Account Name
	• Account Owner
	• Care Plan
	• Individual ID
	• Primary Contact
	• Source System
	• Source System ID

Object	Field Label
Cases	• Account Name • Case Origin • Contact Name • Description • Priority • Status • Subject • Type
Contacts	• Birthdate • Mailing Address • Name • Phone • Source System ID Note: The `Birth Date` field is a custom formula field that reformats the date retrieved from `Birthdate`. Access is defined in the Health Cloud permission sets.
Tasks	• Comments • Due Date • Goal • Name • Priority • Problem • Public • Recurrence Interval • Related To • Repeat This Task • Status • Task Type • Task Record Type • Task Subtype

Anyone who adds external users who are contacts to a care team needs Edit access to the following fields on the User object.

Object	Field Label
User	• Alias • Email

Object	Field Label
	• Last Name • Nickname • Profile • Username • User License

2. Click **Save**.

Add New Internal Users (Required)

You can add internal Salesforce users one at a time or in batches of up to 10 users.

1. From Setup, enter `Users` in the `Quick Find` box, then select **Users**.

2. Click **New User** to add a single user or click **Multiple Users** to add up to 10 users at a time.

3. If multiple user license types are available in your organization, select the user license to associate with the users you plan to create. The user license determines the available profiles.

4. Specify the information for each user, including `Role` and `Profile`.

   Users who need access to the Health Cloud console must have `Service Cloud User` enabled. If you're using Salesforce Knowledge articles to manage protocols, enable `Knowledge User` for every user needing access to articles.

5. To email a login name and temporary password to each new user, select **Generate new password and notify user immediately**.

6. To specify more details for the users that you've created, edit individual users as needed.

Control User Access with Permission Sets (Required)

A permission set is a collection of settings and permissions that provide access to various records and functions in Health Cloud. Many users need a combination of these permissions depending on their roles and their interactions with patients and their records.

To find the list of delivered permission sets, enter `Permission Sets` in the `Quick Find` box, then select **Permission Sets**.

The following table shows the permission sets delivered with Health Cloud. Remember that permission sets don't override your defined record sharing settings. So, for example, if a record is set to Private, even users with the permission to view those objects don't have access.

Always use the delivered Health Cloud permission sets for your users. If particular users need extra permissions, you can create a second permission set and assign it to them, as well. You can also use profiles to manage user access to records and fields.

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Permission	Details
Health Cloud Standard	The standard user is someone who uses the console—most often the care coordinator.
Health Cloud Limited	Generally, an internal user who doesn't use the Health Cloud console. Examples would be a primary care physician or other care team member who needs access to the Health Cloud objects and records using a mobile device.
Health Cloud Admin	The Health Cloud Admin user is someone who configures and customizes the Health Cloud console. This user can be a system admin, but isn't required to be.
Health Cloud API	Gives full access to the integration system's API user to view, modify, and delete all data integrated from the EHR.

👁 **Example:** The following samples show permission set assignments a typical organization would use:

User	Permission	Function
Care Coordinator	Health Cloud Standard	Because they are responsible for creating and managing care plans, care coordinators can view and update the care plan and associated records, including problems and goals.
Primary Care Physician	Health Cloud Limited	Generally, the primary care physician uses the source EHR to create and modify patient records, read-only access to the records in the console is sufficient. In this organization, the physician isn't making updates to the care plan but requests changes through the care coordinator.
Nurse	Health Cloud Standard or Health Cloud Limited	Nurses play various roles in different organizations. In some organizations, nurses establish relationships with patients and caregivers to increase the likelihood that the patient stay on the care plan established by the doctor. If nurses work with the care coordinators to create items in the care plan, they can also update records and would require Health Cloud Standard permissions.

User	Permission	Function
		In other organizations, nurses use the source electronic health system to create and modify patient records, and don't create items in the care plan. So read-only access to the console is sufficient, which only requires Health Cloud Limited permissions.
System Administrator or Care Coordinator Supervisor	Health Cloud Admin	People who set up and customize Health Cloud need access to almost everything. Whether they are a system administrator or a manager of care coordinators, this permission set enables them to customize Health Cloud.
Integration System	Health Cloud API	The integration system needs full access to the API user to view, modify, and delete all data.

Control Access to Patient Lists (Required)

Use sharing settings to control access to patient lists.

By default, any patient list created in your org is available to all users with access to the Health Cloud console.

Field-level and object-level security can also restrict access to an entire patient list or to columns in the patient list.

- Users with profile or permission sets that restrict access to an object can't create a list using that object. The object doesn't appear in the list of records, as a results column, or as a category when creating the list.
- If a user's field-level security restricts access to a field that's selected on the Add Filters tab, that patient list isn't available for that user.
- When a user's field-level security restricts access to a field used as a display column, the column doesn't appear in the patient list.

To restrict access to patient lists, you can use standard Salesforce sharing settings on the list. For example, you can grant access to all care coordinators in a certain department or who share a specific role.

1. To apply sharing settings to a patient list, select the Filter Criteria tab from the Health Cloud - Admin app.

2. On the Filter Criteria Home page, select **All** in the View field and then select the name of the filter criterion for the patient list you're working with.

3. In the Filter Criterion Detail area of the page, select **Sharing**.

   📝 Note: The Sharing button is available when your sharing model is either Private or Public Read Only for a type of record or related record.

4. Grant access to other users, groups, or roles.

Access Level	Org-Wide Result
Full Access	The user can view, edit, and delete the patient list.
Read/Write	Anyone with access to the Health Cloud console can use and edit the list.
Private	Only the user who created the list view can view, edit, or delete the patient list.

Access Level	Org-Wide Result
Public Read Only	Anyone with access to the Health Cloud console can use the list.
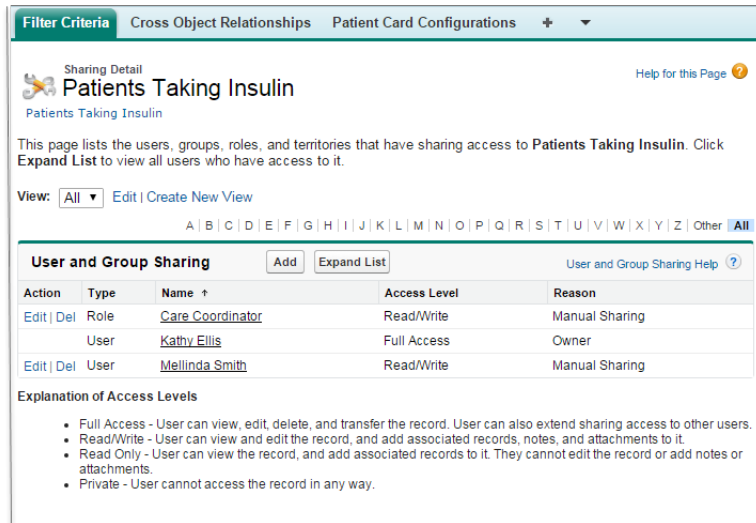
SEE ALSO:

Salesforce Help: Sharing Settings

Create Roles for Care Team Members (Required)

Care team member roles define the access that members have to information in the care plan.

> **Note:** Salesforce Communities provides the collaboration support for Health Cloud. Some of the collaborative features aren't available until you enable Salesforce Communities and create a private patient community.

Every member has a unique role to play in caring for the patient, such as primary care physician, caregiver, or case manager. Roles determine access to patient information, like read only or read/write access. You create a list of roles that care coordinators select from when assigning roles to new care team members. The patient role is automatically assigned during the patient conversion process in Health Cloud and the care coordinator can be assigned during that process, as well.

> **Note:** Salesforce offers a user role hierarchy that you can use together with sharing settings to determine the levels of access users have to your organization's data. Roles within the hierarchy affect access on key components like records and reports. Unlike standard Salesforce roles, the access you provide with care team roles applies only to Case records. When an internal user who is a member of the care team already has a standard Salesforce role, they retain access that comes with their standard role.

When you set up roles for care team membership, you can include internal users who are already in your organization, and external contacts. (Contacts are the people associated with the patient such as family members or specialists outside of your organization.) For each contact, you can store various kinds of information, such as phone numbers, addresses, titles, and roles. In addition, if

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USER PERMISSIONS

To set up case teams for care teams:
- "Customize Application"
  AND
  "Manage Users"

To add team members:
- "Edit" on cases

you've set up Communities, you can make the contact a community user and add them to the patient community. That way, they can see the care plan and collaborate in the feed, if given access.

At a minimum, create a role entitled `Care Coordinator` and a role entitled `Patient`. These roles are used by Health Cloud during patient conversion, and appear as labels throughout the app. To customize the role labels, clone the `Careplan Role Care Coordinator` or `Careplan Role Patient` metadata types in Health Cloud Settings, and rename them. For example, you can change `Care Coordinator` to `Care Manager`, if your organization uses that name for the role.

1. From Setup, enter `Case Team Roles` in the `Quick Find` box, then select **Case Team Roles**.

2. Click **New**.

3. Enter a name for the role.

   Remember that you must create a role entitled `Care Coordinator` and a role entitled `Patient`. These roles are used by Health Cloud during patient conversion, and appear as labels throughout the app.

4. From the `Case Access` picklist, select the role's level of access to cases. Access levels are:

Access Level	Description
Read/Write	User can view and edit the record and add associated records, notes, and attachments to it.
Read Only	User can view the record and add associated records to it. The user can't edit the record or add notes or attachments.
Private	User can't access the record.

5. Click **Save**. Alternatively, click **Save & New** to save the role and begin creating another role.

6. Select **Visible in Customer Portal** so that care team members with this role are visible to community members.

   The care team member roles are now available to assign to different care team members.

IN THIS SECTION:

Enable Task Assignment for Community Users Created from Contacts
Make sure that care team members created outside of the Health Cloud console can be selected for task assignment.

SEE ALSO:

Salesforce Help: Create Case Team Roles
Customize the Delivered Care Team Roles

Enable Task Assignment for Community Users Created from Contacts

Make sure that care team members created outside of the Health Cloud console can be selected for task assignment.

When you create care team members from within the Health Cloud console, they are created as users with community access. When you create a user in the Salesforce Classic Contact page, you can also grant that person community access by enabling them as a customer user. While you can add customer users to the care team and they have access to the patient's community, they can't be assigned tasks using care plan templates until you manually update their user type.

1. Open the patient's Detail page, select the case that's associated with the care plan.

2. In the Case Team related list, find users who have `Contact:` as a prefix to their name.

   These contacts have a user record, but you must update their user type to assign them tasks from the care plan template.

3. Click **Update Case Team Members**.

4. Next to the user's name, use the picklist to change their assignment from `Contact` to `Customer Portal User`.

Customize the Health Cloud Apps (Optional)

You can change some of the properties of the Health Cloud Apps in your organization. For example, you can add the Knowledge widget so that care coordinators can see articles and protocols from the console footer. You can also do things like add your company's logo, change the color of page elements, and enable keyboard shortcuts in the Health Cloud console.

> **Note:** Make sure to assign the Health Cloud - Admin app to the user profile of the Health Cloud admin.

1. From Setup, enter `Apps` in the `Quick Find` box, then select **Apps**.

2. Click **Edit** next to the app you want to modify.

   Select `Health Cloud - Admin, Health Cloud - Worklist,` or `Health Cloud - Console`.

   > **Note:** The only modification that the Health Cloud - Admin app requires is to select the tabs you want to display as an admin.
   >
   > The Today page is to be used in the Health Cloud - Console app only. Adding it to the Health Cloud - Worklist app causes the Today page to display incorrectly.

3. Specify a label for the app. The label can have a maximum of 40 characters, including spaces. This label is the app's name in the app menu.

4. Optionally, specify a custom logo for the app. Click **Insert an image** and choose an image file from the document library.

   Consider these requirements when choosing a custom app logo for a Classic app from the document library:

   - The image must be in GIF or JPEG format and less than 20 KB.
   - If the image is larger than 300 pixels wide by 55 pixels high, then it is scaled to fit.
   - For the best on-screen display, we recommend that you use an image with a transparent background.
   - The `Externally Available` checkbox must be selected on the document's properties so that users can view the image.

5. Optionally, to change the color of the app's page elements, enter the hex code beginning with #.

EDITIONS

Health Cloud is available in Salesforce Classic

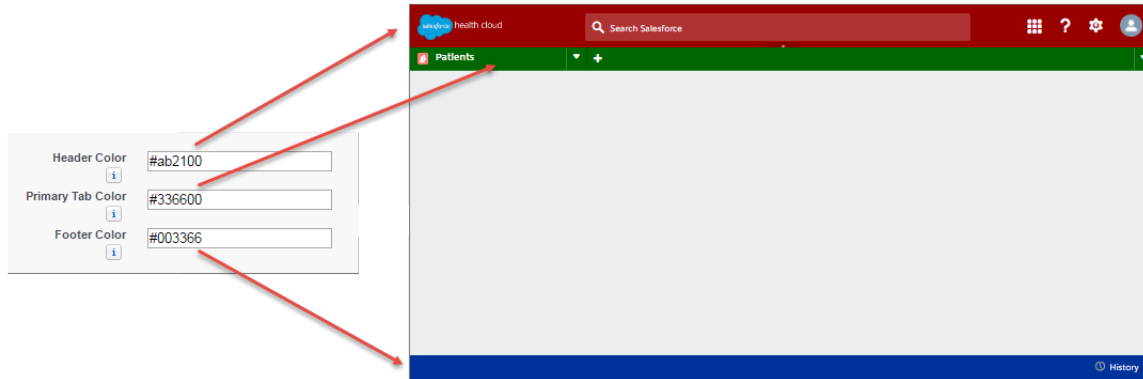Available in: **Enterprise**, **Performance**, and **Unlimited** Editions

USER PERMISSIONS

To view apps:
- "View Setup and Configuration"

To manage apps:
- "Customize Application"

6. Ensure that `Patients, Candidate Patients`, and `Today` are selected as navigation tabs and that they're configured to display as primary tabs in the `Choose How Records Display` selection.

   If you create your own custom apps, like a Dashboards tab, select it to display in the Health Cloud app and configure how it displays in the console. Also, if you are using the Wave Risk Scoring App, add the related tabs to the Health Cloud app and ensure that each user profile can see the tabs by default.

7. Optionally, select how the list is placed in the console.

8. In `Choose Console Components`, add Knowledge One to `Selected Items`.

   When the Knowledge One widget is enabled, care coordinators can access articles and protocols from the console footer.

9. In `Align Custom Console Component`, choose whether the component appears in the footer's right or left side.

10. To let care coordinators perform actions using key combinations instead of the mouse, click the `Customize Keyboard Shortcuts`.

11. Make sure that `Save User Sessions, Enable Multi-Monitor Components, Pin Tabs`, and `Responsive Lists` are all selected.

12. Select the `Visible` option for every profile that needs access to the app.

13. Select the `Default` box to set the app as that profile's default app.

14. Click **Save**.

Set Up Lead to Patient Conversion (Optional)

Your company can use existing Salesforce Lead records to create the Patient records that are used in Health Cloud.

📝 Note: As a best practice, we recommended that customers use the Leads object and its associated patient conversion in place of the Candidate Patients object. If you're using Candidate Patients, we recommend changing your processes to use Leads. That way, you can benefit from ongoing enhancements to Leads that aren't planned to be extended Candidate Patients.

You can either install the HealthCloudExtensions unmanaged package to install the conversion process or you can create your own conversion process. Either way, make sure to add the `Convert to Patient` button to the Leads list view so that care coordinators can convert lead records to patient records. We also recommend removing the `Convert` button from the standard Lead Detail section of the Lead page layout.

IN THIS SECTION:

SEE ALSO:

Map Your Custom Lead Fields

Get the most out of records created from leads when you map your custom lead fields to the fields of the patient record.

⊘ **Important:** Health Cloud automatically handles the default mappings for delivered custom fields on Lead records. Those field mappings support duplicate record checking during conversion. Altering the settings for the following delivered fields can cause unexpected results during the conversion process.

- Birth Date
- Care Coordinator Contact
- Care Coordinator User
- Created from Lead
- Current Generator(s)
- IsMarkedForPatientConversion
- MedicalRecordNumber
- Number of Locations
- Primary
- Product Interest
- SIC Code
- Source System
- Source System ID

If you have your own custom fields on leads, you can map them to fields in the other records and make them available in Health Cloud.

1. From the object management settings for leads, go to the fields section, then click **Map Lead Fields**.

2. For each custom lead field, choose the field into which you want the information inserted when you convert a lead.

3. Save your work.

Manage the Conversion of Lead Record Types

When you convert lead records, use the Individual Record Type Mapper to specify which record types are converted to patients and which are converted to other record types.

During lead conversion, Health Cloud automatically maps all lead record types to the Individual account record type and the Individual contact record type. But if your company has lead record types that are used for other purposes, you can ensure that those leads convert to your specified record types.

For example, a company uses two Lead record types: Patient, and Unaffiliated Provider. They want to convert Patient Lead record types to Individual (Patients) account type records, and Unaffiliated Provider record types to another record type. Using the Individual Record Type Mapper, they create two mapping records. The Patient mapping record specifies `IndustriesIndividual` as the Account and Contact record types and the Lead1 mapping specifies `IndustriesUnaffiliatedProvider` for Account and Contact record types.

The default Individual Record Type Mapper record only allows editing of the `Lead Record Type` and `Record Type Namespace (Lead)` fields. To create a mapping record for additional record type, clone an existing record and make your changes.

> 📝 **Note:** If you don't see the `Lead Record Type` and `Record Type Namespace (Lead)` fields on the page, add them to the Individual Record Type Mapper page layout.

1. From Setup, enter *custom* in the `Quick Find` box, then select **Custom Metadata Types**.

2. Click **Manage Records** next to **Individual Record Type Mapper**.

3. Click **Edit** next to Individual.

4. Complete the `Lead Record Type` and `Record Type Namespace (Lead)` fields with the record type you're mapping to.

   > 📝 **Note:** Leave this field blank to use any record type. All available record types are converted to an Individual record type unless there is another mapping specified.

SEE ALSO:

Configure Custom Record Types for Individuals or Groups

Customize the Leads List View for Patient Conversion

Add the `Convert to Patient` button to the Leads list view so that care coordinators can convert lead records to patients in Health Cloud.

1. From Setup, enter *Leads* in the `Quick Find` box, then select **Search Layouts**.

2. Select **Edit** next to `Leads List View`.

3. Accept the default settings in the Standard Buttons section.

4. In the Custom Buttons section, select and click the right arrow to add the `Convert to Patient` button.

5. Click **Save**.

Use Process Builder to Convert Leads to Patients

Enable care coordinators to convert leads to patient records within Health Cloud by setting up a simple conversion process in Process Builder.

1. From Setup, enter `Process Builder` in the `Quick Find` box, select **Process Builder**, and then click **New**.

   You can also modify an existing active process by cloning a new inactive copy of it. The copy can be a new process or a new version of the current process.

2. Fill out these fields that define your process.

Field	Description
`Process Name`	The name for your process, such as `Lead to Patient`.
	This name appears in the process management page, so consider naming your process so that you can differentiate it from other processes.
`API Name`	The name that's used by the API and managed packages.
	This name must be unique across all processes and flows. (In flows, this field is `Unique Name`.) The name must begin with a letter and use only alphanumeric characters and underscores. It can't include spaces, end with an underscore, or have two consecutive underscores.
	After it's saved, `API Name` can't be changed for the process.
`Description`	Optional. A description for your process.
	The description also appears in the process management page. It's intended to help you differentiate between processes, such as to understand what a process does.
`The process starts when`	Select the option to start this process when `A record changes`.

3. Click **Save**.

4. In the new process, associate the process with an object, and specify when to start the process.

   a. Click `Add Object` and type `Lead`, then select the Lead object.

   b. In the `Start the process` field, select **when a record is created or edited**.

5. Click **Save**.

6. Next, define the criteria that must be true before the process can execute the associated actions.

   a. Click **Add Criteria**.

   b. Type `Not Converted` in the Criteria Name field.

   c. Select `Conditions are met` as the criteria to for executing the action.

   d. Set the following conditions:

Field	Operator	Type	Value
IsConverted	Equals	Boolean	False
IsMarkedForPatientConversion	Equals	Boolean	True

   e. For `Conditions`, select `All of the conditions are met (AND)`.

   f. Click **Save**.
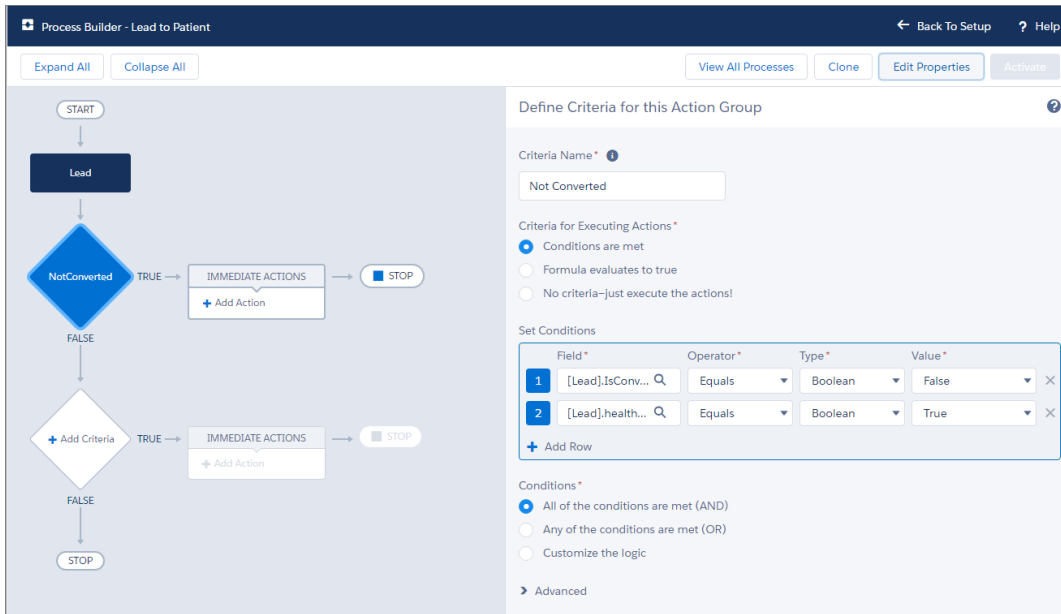
7. Next, define the actions that are executed when the criteria are met.

   a. Click **Add Action**.

   b. Select `Apex` in the Action Type field.

   c. In the Action Name field, type `Lead to Individual`.

   d. Select the Lead to Individual Apex class.

   e. In the Set Apex Variables field, select the following options.

Field	Type	Value
leadIds	Reference	Lead ID

   f. Repeat the previous steps and create another Apex action type named `Create Care Plan` and associate it with the Create Care Plan and Care Team Apex class.

    In the Set Apex Variables field, select the following.

Field	Type	Value
leadIds	Reference	Lead ID

g. Click **Save**.

8. Click `Activate` to begin using the process. Salesforce doesn't start using a process to evaluate records as they're created or edited until you activate it.

Provide Easy Access to Protocols and Articles (Optional)

Salesforce Knowledge lets you easily create and manage content and make it available to other healthcare professionals and to the patient and care team members.

An article can contain the protocols you use to manage conditions or can hold educational materials you send to patients. When you set up Salesforce Knowledge, you give your care coordinators access to your organization's library of articles and protocols. After you set up Salesforce Knowledge in your organization, users with Knowledge licenses can write, edit, publish, and archive articles using the Articles Management tab or find and view published articles using the Articles tab.

By setting up the Knowledge One widget, you give care coordinators the ability to search, send, and create articles, all without leaving the Health Cloud console. Make sure that you've added Knowledge One to all the profiles that have access to the console.
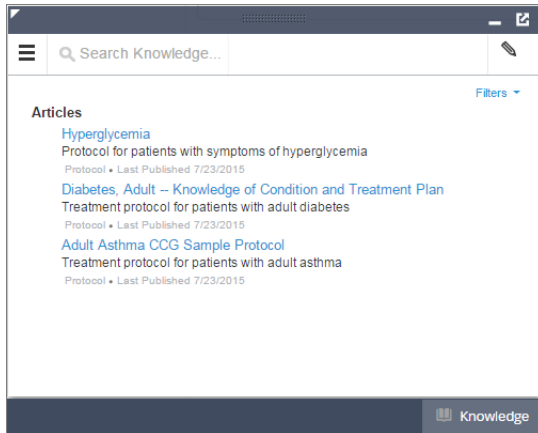
Using the Knowledge One widget, articles can be accessed from the console footer, care coordinators can:

- Search for and find relevant articles or protocols

- Attach a published article to a care plan in one click

- Email an article as a PDF, if shared on a public channel

- Create and manage articles, when the user has permission and the correct license.

IN THIS SECTION:

Enable Knowledge Users

Before you can set up all the great features of Salesforce Knowledge, make sure that you're a Salesforce Knowledge user.

Create Article Types

Articles types are the first step in creating the articles used to display protocols. An article type defines the structure and the types of content an author can add to an article or a protocol.

Enable Salesforce Knowledge

Before you can set up Knowledge, you must enable it in the organization.

Drive Learning with Protocols and Articles

Salesforce Knowledge lets you easily create and manage content and make it available to other healthcare professionals and to the patient and care team members. An article can contain the protocols you use to manage conditions or can hold educational materials you send to patients. You can write, edit, publish, and archive articles using the Articles Management tab or find and view published articles using the Articles tab.

Enable Knowledge Users

Before you can set up all the great features of Salesforce Knowledge, make sure that you're a Salesforce Knowledge user.

1. At the top of any Salesforce page, click the down arrow next to your name.

2. From **My Settings**, select **Personal Settings**, enter *Advanced User Details* in the *Quick Find* box, then select **Advanced User Details**.

3. Click **Edit**.

4. Select *Knowledge User*.

5. Click **Save**.

Create Article Types

Articles types are the first step in creating the articles used to display protocols. An article type defines the structure and the types of content an author can add to an article or a protocol.

Health Cloud uses the power of Salesforce Knowledge to let you author and manage the article types that you use for protocols or educational articles.

📝 **Note:** You can't enable Salesforce Knowledge until at least one article type is created.

When creating the article that contains a protocol, the author begins by selecting an article type. Article types, such as protocols, FAQs, and tutorials, provide the format and structure to control how an article displays for each audience, known as a channel. For each article type you can create custom fields, customize the layout by adding or removing sections and fields, and choose a template for each channel. You can also create workflow rules and approval processes to help your organization track and manage article creation and publication.

1. From Setup, enter *Article Types* in the *Quick Find* box, then select **Knowledge Article Types**.

2. Click **New Article Type** or edit an existing article type.

3. Enter the information for the following fields:

Field	Description
Label	A name used to refer to the article type in any user interface pages.
Plural Label	The plural name of the object. If you create a tab for this object, this name is used for the tab.

Field	Description
Gender	If it is appropriate for your organization's default language, specify the gender of the label. This field appears if the organization-wide default language expects gender. Your personal language preference setting does not affect whether the field appears. For example, if the organization's default language is English and your personal language is French, you are not prompted for gender when creating an article type.
Starts with a vowel sound	If it is appropriate for your organization's default language, check if your label must be preceded by "an" instead of "a".
Object Name	(Read only) A unique name used to refer to the article type when using the API. The Object Name field can contain only underscores and alphanumeric characters. It must be unique, begin with a letter, not include spaces, not end with an underscore, and not contain two consecutive underscores.
Description	An optional description of the article type. A meaningful description helps you remember the differences between your article types when you are viewing them in a list.
Track Field History	(Optional) Select this option to track the full history of an article and its versions. The system records and displays field updates, publishing workflow events, and language versions for the master article and any translations.
Deployment Status	Indicates whether the article type is visible outside Setup. **In Development** means that article managers can't choose this article type when creating articles. Only select **Deployed** after you are done creating the article type.

4. Click **Save**.

5. In the Fields section of the Article Type definition, click **New**.

6. On the New Custom Field page, select `Text Area (Rich)`.

   The Rich Text Area field lets authors enter formatted text, add images, videos, and links. The fields hold up to 131,072 characters on separate lines.

7. Click **Next**.

8. Enter a field label. The field name is populated based on the field label you enter. Ensure that the custom field name is not identical to any standard field name for that object.

9. Enter any field attributes, such as `Description`, and click **Next** to continue.

10. Set the field-level security to determine whether the field is visible and editable or read only for specific profiles, and click **Next**. Field-level security allows you to control which fields are visible in different channels.

11. Ensure that the field `Yes, add this custom field to the layout` is selected so that the rich text field is included in the page layout.

12. Click **Save** to finish or **Save & New** to create more custom fields.

13. Optionally, rearrange your custom fields on the article-type layout.

> 📝 **Note:** Don't forget to grant article type permissions for each user profile needing access to protocols and articles.

Enable Salesforce Knowledge

Before you can set up Knowledge, you must enable it in the organization.

1. From Setup, enter `Knowledge` in the `Quick Find` box, then select **Knowledge Settings**.

2. Confirm that you understand the impact of enabling Salesforce Knowledge and click `Enable Salesforce Knowledge` and click **OK** in the dialog box.

3. Click **Edit** to select your general settings.

    a. Select `Allow users to create and edit articles from the Articles tab` to enable care coordinators and internal users to edit articles without going to the Article Management tab.

    b. Select `Activate Validation Status field` to add a Validation Status field to all articles.

    This way, users can attach approved articles to questions instead of ones that haven't gone through an approval process.

    c. Select `Allow users to add external multimedia content to HTML in the standard editor` to allow <iframe> elements in the standard editor to embed multimedia content from Dailymotion, Vimeo, and YouTube.

4. Select `Internal App` and `Customer` to show article summaries to customers and internal community members in the article list view.

5. Accept the default settings for Knowledge One options.

6. Choose the **Default Knowledge Base Language**. This is the language your authors will use to write most of the articles. We recommend that your default knowledge base language and your organization's language be the same.

> 📝 **Note:** Current multi-language users can still use Communities. The Salesforce Help provides more details on multi-language organizations.

7. Select **Single Language**.

8. Optionally, select `Allow users to create an article from a case` to let users create a draft article that is attached to the case.

9. Select the option to let users with correct privileges use the standard editor when they create articles. This lets them add links, formatting, and videos to articles.

10. Select a default article type.

11. Optionally, select the options to use profiles to create PDF files on cases and for users to share articles with public URLs.

12. Optionally, select the option to `Allow agents to create an article from a reply`.

    This lets users turn a particularly helpful answer into an article.

    a. Select the default article type.

    b. Select an internal user to assign the article to so that it can be evaluated for accuracy.

13. Skip the steps to set up Chatter Questions and Knowledge Statistics.

14. Click **Save**.

For more information on setting up Salesforce Knowledge, see the *Salesforce Knowledge Implementation Guide* or search the Salesforce Help.

Drive Learning with Protocols and Articles

Salesforce Knowledge lets you easily create and manage content and make it available to other healthcare professionals and to the patient and care team members. An article can contain the protocols you use to manage conditions or can hold educational materials you send to patients. You can write, edit, publish, and archive articles using the Articles Management tab or find and view published articles using the Articles tab.

Authors create articles by selecting an article type, writing content, and selecting where it should be published. You create both articles and protocols from the Article Management tab, but you select a different article type depending on the content you want to create.

> **Note:** It's possible that not everyone in your organization will have the license type or permissions to create articles and protocols for your patients and care coordinators. Contact your Salesforce administrator for access to the Article Management tab. You can also make the Article Management tab visible to a user's profile.

1. On the Article Management tab, click **New**.

2. If your organization supports multiple languages, choose the language for the article.

3. Choose an article type, enter the article title, and click **OK**.

4. Edit the article's fields, and select a validation status. If your article contains a rich text area field, you can add some formatting such as bulleted lists, links, and images.

5. Optionally, if your organization uses data categories, select the categories to associate with your article:

   - Click **Edit** next to a category group to open the category selection dialog box.

   - In the `Available Categories` list, expand the category hierarchy to select a category.

   - Click **Add** to move a selected category to the `Selected Categories` list.

     > **Note:** You can't add both a category and its child categories to the `Selected Categories` list. When you add a category to an article:
     >
     > – Child categories in the `Available Categories` list are unavailable unless you remove the parent from the `Selected Categories` list.
     >
     > – Child categories in the `Selected Categories` list disappear from that list.
     >
     > Users searching for articles can find them by selecting an exact category or by selecting a parent or child category.

   - Click **OK**.

6. Select the audience you want to publish the article to:

   - Internal App: Salesforce communities users can access articles in the Articles tab depending on their role visibility.

   - Customer: Customers can access articles if the Articles tab is available in a community.. Customer users inherit the role visibility of the manager on the account. In a community, the article is available only to users with Customer Community licenses or Customer Community Plus licenses.

EDITIONS

Health Cloud is available in Salesforce Classic

Available in: **Enterprise**, **Performance**, and **Unlimited** Editions

USER PERMISSIONS

To create articles:
- "Manage Articles"

  AND

  "Create" and "Read" on the article type

To edit draft articles:
- "Manage Articles"

  AND

  "Read" and "Edit" on the article type

To edit published or archived articles:
- "Manage Articles"

  AND

  "Create," "Read," and "Edit" on the article type

- Partner: Partners can access articles if the Articles tab is available in a community. Partner users inherit the role visibility of the manager on the account. In a community, the article is available only to users with Partner Community licenses.
- Public Knowledge Base: Articles can be made available to anonymous users by creating a public knowledge base using the *Sample Public Knowledge Base for Salesforce Knowledge* app from the AppExchange.
- Your own website. Articles can be made available to users through your company website.

7. Click **Quick Save** to save your changes and remain on this page. Alternatively, click **Save** to save your changes, close the article, and go to the Article Management tab.

8. Click **Publish...** when the content is ready to be published.

9. Select `Publish article(s) now` or `Schedule publication on` to choose the date to publish the article.

10. If the article has previously been published, select the `Flag as new version` checkbox to make the new article icon (✳) display next to your article in the selected channels. Users from these channels can see that this article has been modified since the last time they've read it. This checkbox is not available when you publish an article for the first time, as the icon displays by default for new articles.

11. Click **OK**.

Articles you scheduled for publication at a later date continue to appear in the Draft Articles filter, now with the pending icon (🕐) next to the article title. Hover over the icon to see the publication date.

SEE ALSO:

    Salesforce Help: Publish Articles and Translations

Switch On Salesforce Communities (Optional)

If you're extending the Health Cloud console with Communities, the first step in setting up a private community is to flip the switch to enable Salesforce Communities.

📝 **Note:** Salesforce Communities provides the collaboration support for Health Cloud. Some of the collaborative features aren't available until you enable Salesforce Communities and create a private patient community.

Salesforce Communities lets care coordinators, patients, and care team members collaborate in the private community. Although all Health Cloud users share the same Community, access to information is restricted through the security that surrounds each individual care plan. So a patient can only see information or communication related to his or her specific care plan.

📝 **Note:** Once you enable Communities, you can't turn it off.

1. From Setup, enter `Communities Settings` in the `Quick Find` box, then select **Communities Settings**.

2. Select **Enable Communities**.

3. Enter a unique value to use as your domain name. Click **Check Availability** to make sure it's not being used by someone else.

It's a good idea to use something recognizable to your users, such as your company name. Although the domain name is the same for all communities, you create a unique URL for each community during the creation process.

📝 **Note:** Keep in mind that you can't change the domain name after you save it. You'll have to call Salesforce to change it.

4. Click **Save**, and make sure you click **OK** on the confirmation message page to enable the community.

IN THIS SECTION:

Community Setup Checklist

The private patient community is the heart of collaborative patient care. Communities provide care coordinators, physicians, patients, and caregivers an easy way to interact with each other whenever and wherever they are. You can set up private patient community using Salesforce Community Builder with the Customer Service (Napili) template.

Community Setup Checklist

The private patient community is the heart of collaborative patient care. Communities provide care coordinators, physicians, patients, and caregivers an easy way to interact with each other whenever and wherever they are. You can set up private patient community using Salesforce Community Builder with the Customer Service (Napili) template.

Building a community is the result of research, mapping of goals, and defining your audience. At the same time, you must have all your ducks in a row so the actual implementation process is seamless. You know your org best, but use this general checklist to help you organize what you need for a community using the Customer Service (Napili) template.

Community templates let you build self-service communities that give customers the same visual and functional experience on tablets, mobile devices, or desktops. Community Builder makes it super easy to customize your community. Simply edit a few components, add images to extend your branding, and you're ready to go—without any coding!

This topic provides a high-level outline of the steps needed to get your community up and running. Refer to the Salesforce Help and the Using Templates to Build Communities guide for the detailed steps to get your community launched in no time at all.

> **Note:** Remember that external care team members require at least a Customer Community Plus license to become community members and collaborate around the patient care plan.

Before you begin:

Gather your branding assets:

☐ High-resolution image of your company logo

☐ Color scheme (or an image to upload to automatically generate one)

☐ Image to use as a header

☐ Thumbnail images (385x385 pixels), if you're using Featured Topics

In your internal Salesforce org:

☐ Switch On Salesforce Communities (Optional). Choose a unique URL that works for your business, because you can't change it after it's been set.

☐ Set up email templates for any communication between the community and its members (welcome email, resetting password email, etc.).

☐ Enable the global header for the system administrator profile, and any other profiles accessing your community from the internal org.

☐ Enable any other features you plan to use in the community, such as Salesforce Knowledge.

☐ Review profiles and add permission sets as needed.

Health Cloud Setup

Perform the following steps when setting up Health Cloud in the Salesforce Setup menu:

- ☐ Create a Health Cloud Community user profile.

  To update the profile from Setup, enter *Profile* in the Quick Find box, then select **Profiles**. Clone the existing Customer Community Plus user profile and modify it, as needed. Add Read access to Accounts, Contacts, Solutions, Cases, Documents, Problems, and Goals. Update field level security to make all fields visible for Problems and Goals. Verify that the Chatter tab is enabled.

- ☐ Create a Health Cloud Admin profile.

  Add the Patient Card Configuration tab to the profile.

- ☐ Create users.

  When you create community users manually, assign your Health Cloud Community profile to them and clear the Salesforce 1 checkbox.

- ☐ Configure sharing settings for cases.

  To update the setting from Setup, enter *Sharing* in the Quick Find box, then select **Sharing Settings**. Make sure that you select **Enable External Sharing Model** and set external case sharing to **Private**. That way, users can collaborate only with the care teams they are members of. Care plan access is restricted by membership in the community, as well.

- ☐ Update the CommunityProfileName custom setting with the value *Health Cloud – Community*. This value is the name of your community profile.

  From Setup, enter *Custom* in the Quick Find box, then select **Custom Settings**. Click Manage next to CommunityProfileName, and then click **New** to add the name and the value for the community.

Community Setup

Perform the following setup tasks from the Community node in Setup:

- ☐ Select the Customer Service (Napili) template.

  In the Community Creation wizard, select the Customer Service (Napili) template to start building your community. Customer Service (Napili) is a powerful, responsive template that gives users the same visual and functional experience whether they use a tablet, a mobile device, or their desktop.

- ☐ Enable the global header.

  The global header lets users switch between their communities and the internal organization. Users must be assigned the "View Global Header" permission either by selecting it on standard profiles, creating custom profiles, or by creating a permission set.

- ☐ Customize community properties.

  From the Community Management page, select **Administration** > **Members** to customize the properties of the community.

- ☐ Enable private messages.

  From the Community Management page, select **Administration** > **Preferences**, select **Users can send and receive private messages**.. Remember that both the sender and receiver of private messages must have a profile that is associated with the community.

Community Builder

Perform the following setup tasks using Community Builder. From Setup, enter *All Communities* in the Quick Find box, then select **All Communities**. Then click **Manage** next to the community name.

- ☐ Brand your community.

  Add your logo and use Community Builder's enhanced Branding Editor to efficiently apply color and style to your community.

- ☐ Edit community pages and components.

Remove unwanted default pages from the Customer Service (Napili) template and create more pages, as needed. To allow access the new pages you create, be sure to update the navigation menu.

- ☐ Update component properties.

  Review and update the properties for the User Profile Header, the Search Publisher, and any other components that you use.

- ☐ Configure page layouts.

  Configure page layouts in the Page Editor for objects using the Record Information component.

- ☐ Preview, test, and publish your community.

  Look at your community in a desktop browser window and on mobile devices. When you're happy with your changes, click **Publish** in the toolbar to publish your changes.

How Salesforce Shield Protects Your Data

Health Cloud now fully supports Salesforce Shield—allowing you to easily comply with regulations on storing sensitive PHI data. New features like Event Monitoring and Platform Encryption allow you to monitor usage, prevent malicious activity, and protect data at rest while allowing full functionality.

Salesforce Shield is a trio of security tools you can use to build a new level of trust, transparency, compliance, and governance right into business-critical apps. Salesforce Shield is a separately licensed set of services that includes Platform Encryption, Event Monitoring, and Field Audit Trail

Platform Encryption

Walk Through It: Create an Encrypted Custom Field

Platform Encryption allows you to natively encrypt your most sensitive data at rest, allowing you to address HIPAA requirements for storing sensitive protected health information. Encryption helps you protect PII, PHI, sensitive, confidential, or proprietary data. It enables you to meet both external and internal data compliance policies while keeping critical app functionality—like search, workflow, and validation rules. You keep full control over encryption keys and can set encrypted data permissions to protect sensitive data from unauthorized users.

Select the fields you want to encrypt based on your business logic. You can give users who need access to encrypted fields permission through their profile or by implementing field-level encryption. You can encrypt the field contents for new or existing custom fields of the following types.

- Email
- Phone
- Text
- Text Area
- Text Area (Long)
- URL

Once a field is encrypted, you can't change the field type. If you use custom phone and email fields, the formats remain preserved after enablement. Remember that when you enable encryption for files, attachments, or fields, existing data is not affected. Only the data created after enablement completes is encrypted.

The following platform encryption functionality isn't supported in Health Cloud:

- Encrypted data is unmasked and visible to Health Cloud users. We recommend using object-level security and field-level security to restrict the visibility of sensitive data.

- Encrypted fields appear in Health Cloud user interface, but are masked for users without the View Encrypted Data permission. You control access to sensitive data based on a user's object-level security and field-level security.

- Encrypted fields can't be used in SOQL WHERE clauses like filter criteria, ORDER BY, or GROUP BY. Use SOSL FIND statements instead.

- Encrypted fields can't be used as filter criteria or SORT BY in reports.

- When an encrypted field is used as a primary sort field,

> ✎ Note: To use a standard encrypted field as filter criteria (ORDER BY or GROUP BY), unencrypt the field. Then, log a case with Salesforce Support to have the data decrypted.

Event Monitoring

Event Monitoring gives you access to detailed performance, security, and usage data on all your Salesforce apps. Every interaction is tracked and accessible via API, so you can view it in the data visualization app of your choice. See who is accessing critical business data when, and from where they're getting access. Understand user adoption across your apps. Troubleshoot and optimize performance to improve end-user experience. Event Monitoring data can be easily imported into any data visualization or application monitoring tool like Wave Analytics, Splunk, or New Relic. To get started, check out our Event Monitoring Trailhead module.

Field Audit Trail

Field Audit Trail lets you know the state and value of your data for any date, at any time. You define a policy to retain archived field history data up to 10 years, independent of field history tracking. This feature helps you comply with industry regulations related to audit capability and data retention. You can use it for regulatory compliance, internal governance, audit, or customer service. Field Audit Trail helps you create a forensic data-level audit trail with up to 10 years of history, and set triggers for when data is deleted.

SEE ALSO:

Salesforce Help: Protect Your Salesforce Data with Shield Platform Encryption

Salesforce Help: Which User Permissions Does Shield Platform Encryption Require?

Salesforce Help: Which Fields Can I Encrypt?

Salesforce Help: Field Audit Trail

CUSTOMIZE THE CARE CONSOLE

Health Cloud is a managed package, installed on top of Salesforce Enterprise Edition, Performance, or Unlimited editions. While not every component or attribute in a managed package is customizable, we've given you the ability to edit the key components and attributes that you'll need to make your instance of Health Cloud fit your company's needs.

IN THIS SECTION:

Health Cloud Custom Tabs
We've delivered a set of custom tabs to help you customize the Health Cloud Console to align with how your company works with patients.

Customizing the Patient Details Tab
The Patient Details tab shows patient records that are associated with the Account record. If you prefer to have the Contact record appear on the tab, you can change the settings for HcFeatureDriver in Health Cloud Settings that are part of Custom Metadata Types.

Customize the Patient Card
You can add fields to the patient card and provide care coordinators with the information they need about a patient's contact information, conditions, prescriptions, appointments, and other information from their medical records.

Override Custom Labels
The custom labels that are delivered with Health Cloud package can't be edited, but you can override them by creating a translated version of the label.

Configure the Timeline View
You can add or remove healthcare events from the timeline view to provide your care coordinators with precisely the information they need to be more effective in managing their patients.

Customize the Delivered Care Team Roles
The roles that people have in the healthcare world are incredibly varied. So we've given you the flexibility to change the standard Health Cloud roles to ones that reflect how your organization works.

Use Custom Metadata Settings to Configure Health Cloud
You can add or replace fields in many of the components of Health Cloud using custom metadata.

Customize Problems and Goals
With fields sets, you can add custom fields or change the order of existing fields on the pages used to create problems and goals.

Customize Tasks
Customize the fields on the New Task page so that the field values reflect the kinds of tasks care coordinators most often assign, and use rating terminology specific to your organization.

Customize the Create External Member Fields
You can customize the fields that appear on the modal that care coordinators use to create an external care team member.

Customize the Candidate Patient List View
You can customize the fields that appear on the list view that care coordinators use to convert candidate patients to patients in Health Cloud.

Add Cross-Object Relationships to Customize Patient List Filter Options
Cross-object relationships control which objects and fields appear in the filter selection options when creating patient lists.

Health Cloud Custom Tabs

We've delivered a set of custom tabs to help you customize the Health Cloud Console to align with how your company works with patients.

Tab Name	Description
Cross Object Relationships	Cross-object relationships control which objects and fields appear in the filter selection options when creating patient lists.
EHR Custom Objects (EHR Patients, EHR Encounters, and so on)	These tables contain data from the source record system related to things like prescriptions, conditions, patients, and immunizations.
Patient Card Configurations	Edit the patient card view to add or remove information from EHR or other records.
Timeline View Configurations	Add or remove healthcare events from the timeline to provide care coordinators with the information they need to be more effective in managing patients.

Customizing the Patient Details Tab

The Patient Details tab shows patient records that are associated with the Account record. If you prefer to have the Contact record appear on the tab, you can change the settings for HcFeatureDriver in Health Cloud Settings that are part of Custom Metadata Types.

When you change the default settings or if you use a custom page layout, you must also modify the associated page layout. For example, to modify the Account layout, follow these steps.

1. From Setup, enter *Account* in the Quick Find box, then select **Accounts**.

2. Select **Edit** next to Patient Layout.

3. Select the **Custom Console Components** link at the top of the page.

4. In the Primary Tab Components section, add the following information to the Left Sidebar section.

Field	Value
Style	Stack
Width px	350
Autosize Components	Selected

Field	Value
Type	Visualforce page
Component	PatientProfile_Page
Height %	100

Customize the Patient Card

You can add fields to the patient card and provide care coordinators with the information they need about a patient's contact information, conditions, prescriptions, appointments, and other information from their medical records.
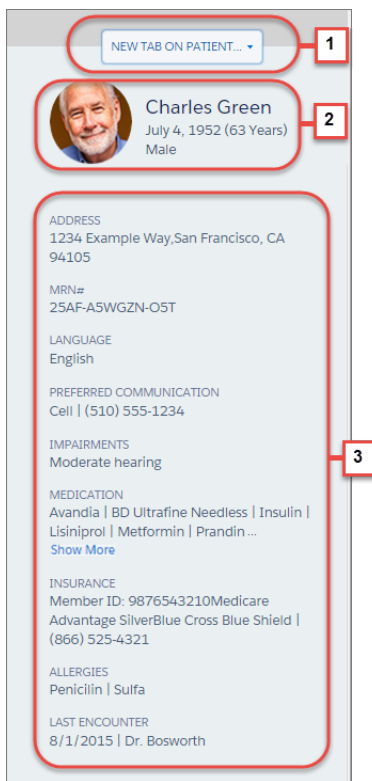
The patient card is made up of three different components:

- The patient card navigation menu **(1)** that lets care coordinators navigate to the pages they need without leaving the patient card. You can customize the items that appear in the tab navigation list on the patient card using custom settings. So you can add a new navigation item to one of the default menu categories, or you can add a category with new child navigation options to what you already have.

- The patient card header **(2)** that provides basic information on the patient as well as a thumbnail photo, if available.

  The patient card header shows identification information for the patient. The following table shows the source of the information that is displayed for each patient. Fields from the patient card header aren't available for editing or other customizations.

Field	Source
Thumbnail photo	Chatter profile photo
Patient name	Contact record
Date of birth and age	Formula field based on fields from the contact record
Gender	Gender custom field on Contact record

- Patient contact and medical record fields **(3)** that you can add to the patient card. You can customize the patient card and add fields from the source record system so that care coordinators have the information they need to manage patients. Each field displays up to 200 characters, after which users can click `Show More` to expand the section and view the remaining text. There is no upper limit to the number of fields you can add to the patient card, but we recommend no more than 15-20 fields to ensure optimal performance.

IN THIS SECTION:

Add Items to the Patient Card Navigation Menu

You can make it quick and easy for care coordinators to navigate to the pages they need without leaving the patient card.

Add Fields to the Patient Card

You can edit the patient card view to add or remove information from EHR or other records.

Add Items to the Patient Card Navigation Menu

You can make it quick and easy for care coordinators to navigate to the pages they need without leaving the patient card.
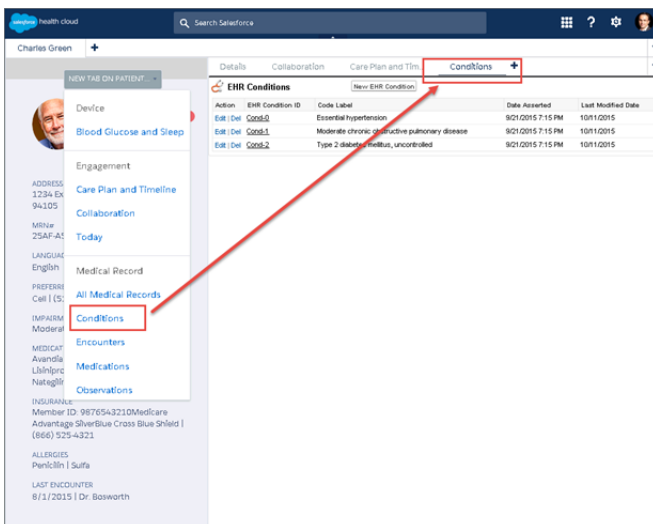
Care coordinators need quick access to the different tabs and pages that give a complete picture of a patient's records. You can configure the tab navigation menu on the patient card to open standard and custom pages or URLs as either primary or secondary tabs. Clicking an item in the menu opens a new tab or subtab related to that patient's records.

EDITIONS

Health Cloud is available in Salesforce Classic

Available in: **Enterprise**, **Performance**, and **Unlimited** Editions

USER PERMISSIONS

To customize the patient card navigation menu:
- "Manage Profiles and Permission Sets" AND "Customize Application"

You can customize the items that appear in the tab navigation list on the patient card using custom settings. So you can add a navigation item to one of the default menu categories, or a category with new child navigation options to what you already have. For example, create your own Visualforce page and add it to the navigation list or you can add a URL to another frequently used page.

📝 **Note:** All navigation menu elements appear in alphabetical order. Categories are listed in alphabetical order, as are the subcategories beneath them.

1. From Setup, enter `Custom Settings` in the `Quick Find` box, then select **Custom Settings**.

2. In the list of custom settings, click `Manage` next to the `CardView Dropdown` custom settings.

3. Click **New** and complete the following fields:

Field	Details
Name	Description of the menu navigation item for internal purposes. This text doesn't appear on the menu or the page.
Category Name	Name of the parent category that contains child menu navigation items. The category name is just a heading and isn't a clickable navigation link.
	This field isn't available for localization using the Translation Workbench. To display the label in another language, deactivate or delete the delivered field configuration record. Then, create a field record in the language for that org.
URL Parameter	(Optional) Add more URL parameters to the existing Visualforce page or URL to open the new tab.
Tab Type	Specify the type of tab to use for this page: `Primary` or `Subtab`. A primary tab is the main item to work on. A subtab is related to an item on a primary tab.
Subcategory Name	Name of the child category in the menu list. This text is the clickable link that opens the page or tab.
	This field isn't available for localization using the Translation Workbench. To display the label in another language, deactivate or delete the delivered field configuration record. Then, create a field record in the language for that org.
Page Type	Content type of the new page. Specify `VFpage` or `URL`.
	📝 **Note:** Make sure to add external URLs to the console's whitelist so that console users can access that domain.
URL	URL to access the page.

4. Click **Save**.

Example: The following example shows how to add a subtab entitled `All Medical Records` to a category named `Medical Records`:

Field	Details
`Name`	All Medical Data.
`Category Name`	Medical Record
`URL Parameter`	Not necessary
`Tab Type`	*Subtab*
`Subcategory Name`	All Medical Records
`Page Type`	*VFpage*
	Note: Make sure to add external URLs to the console's whitelist so that console users can access that domain.
`URL`	/apex/<VF page name>

IN THIS SECTION:

Whitelist Domains for Health Cloud Console

Administrators can let console users access domains outside of Salesforce. For example, you can add *www.example.com* to a console's whitelist so that console users can access that domain.

Whitelist Domains for Health Cloud Console

Administrators can let console users access domains outside of Salesforce. For example, you can add *www.example.com* to a console's whitelist so that console users can access that domain.

1. From Setup, enter *Apps* in the `Quick Find` box, then select **Apps**.

2. Select a console app.

3. Click **Edit**.

4. In `Whitelist Domains`, type the domains you want users to access, and separate multiple domains by commas. You don't need to add *http://* or *https://* because those are part of a URL, not a domain.

5. Click **Save**.

Add Fields to the Patient Card

You can edit the patient card view to add or remove information from EHR or other records.

Watch a Demo: ▶ Add Essential Information to the Patient Card

Health Cloud delivers the patient card with the basic fields that care coordinators commonly use. You can customize the patient card and add fields from the source record system so that care coordinators have the information necessary to make informed decisions and provide excellent patient care.
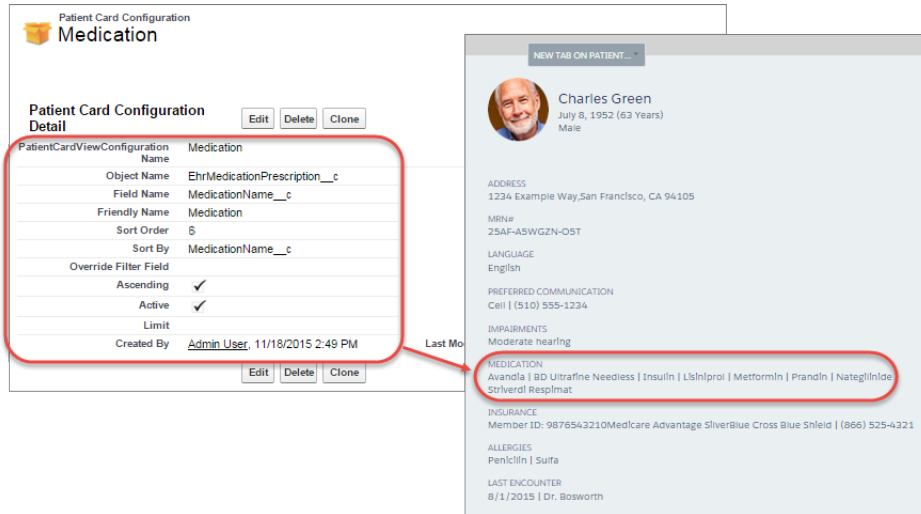
Each field displays up to 200 characters, after which users can click `More` to expand the section and view the remaining text. There's no limit to the number of fields you can add to the patient card, but we recommend no more than 15-20 fields for optimal performance. You can add fields from objects that come from the custom EHR tables and other objects, as well. Be sure that the objects that you're adding to the patient card are related to the Account object.

💡 Tip: Check the Schema Builder in your org if you're unsure if an object is related to the Account object.

1. From the Health Cloud - Admin Home page, select the Patient Card Configuration tab, and click `New`.
2. Enter the following:

Field	Description
`Patient Card Configuration Name`	Name of the patient card item you're creating. This name appears only on setup pages.
`Object Name`	Name of the object that contains the field to show on the patient card. Use the exact spelling of the object name to ensure correct results.
`Field Name`	Name of the field that contains the information to display on the patient card.
`Friendly Name`	Text that appears as a field label on the patient card.
	📝 Note: The text in this field isn't available for localization using the Translation Workbench. To have this text appear in another language, clone the configuration record and enter the text using the language you want to display. Then, set the `Language` field of the new record to that language. The system displays the label text that matches the user's language setting.

Field	Description
Sort Order	Indicates the vertical order in which this field appears on the patient card.
	Note: If you clone a configuration record so that you can localize the label, then also modify the sort order. Since you can't have two records with the same assigned sort order, create a different version number for the new record. For example, if the English record has *3* in the `Sort Order` field, then assign the Spanish version *3.1*.
Sort By	Enter the name of the field used to define the order in which the results appear. For example, if you have several medication names returned, you can sort them by the date prescribed. That way, the most recent prescriptions appear first in the field.
Override Filter Field	If you're creating your own filter field or adding a field to the patient card, enter the name of your filter field.
	When creating your own filter field to use instead of IsVisibleOnPatientCard__c, enter the name of your filter field. Make sure that the new filter field is either a Boolean or a formula field that returns a checkbox-type value.
	Note: If you're adding a standard Salesforce field (like Case), this field is required.
Ascending	Select to display results in ascending order. This field works with the Sort By field.
Active	Select to activate this field and have it appear on the patient card.
Limit	Enter the maximum number of results that can appear in the field.
Language	The setting that specifies the language of the text in the `Friendly Name` field.
Language Code	The code that specifies the language of the text in the `Friendly Name` field.
Patient Account Lookup	Name of the lookup to display on the patient card when multiple lookups to Account exist. The default for this field is Account__c.
	Note: To use delivered Account lookups for standard objects like Contact or Task, you must append *Id* to the lookup field name. For example, to configure a lookup from Contact to Account, use *AccountId* in this field. Similarly, for a lookup from Task to What, use *WhatId*.

> **Note:** If you don't see the `Language` and `Language Code` fields on the list view, add the fields to the page layout and to the patient account lookup. Then, refresh the page by selecting `All` and clicking **Go!**.

IN THIS SECTION:

[Create a Custom Formula Field for the Patient Card](#)

You can customize the information that appears on the patient card by adding a custom filter field to a specified object.

Create a Custom Formula Field for the Patient Card

You can customize the information that appears on the patient card by adding a custom filter field to a specified object.

By default, the patient card shows fields that provide basic medical and contact information for the patient. To add other items to the patient card or to change the information that displays from the delivered fields, create a custom formula field on the object you want to display. For example, to display medical device information, create a custom field on the EHR_Devices object with a formula that returns the information you want to display on the patient card.

1. From Setup, enter *Object* in the `Quick Find` box, then select **Objects**.

2. Select the name of the custom object that holds the information you want to display on the patient card.

3. In the Custom Fields & Relationships section of the page, click **New**.

4. Select `Formula` as the data type and click **Next**.

5. Enter a field label that identifies the custom field.

6. Select `Checkbox` for the return type and click **Next**.

7. Create a formula that returns the results that you want to display on the patient card.

   For instructions on using the Advanced Formula tab, search for [Build a Formula Field](#) in the Salesforce Help & Training.

> **Example:** The following table shows the objects and fields you can use to add information on the patient card. When there are multiple entries returned for an item, each value is separated by a vertical bar.

Display Name	Description	Object	Field
Agent/Guardian/Guarantor	Name of person responsible for the patient.	EHR Related Person	IsVisibleOnPatientCard
Language	Preferred language	EHR Patient	IsVisibleOnPatientCard
Medications	Name of current medications.	EHR Medication Prescription	IsVisibleOnPatientCard
Immunization	Current or valid immunizations.	EHR Immunization	IsVisibleOnPatientCard
Medical Conditions	Currently diagnosed conditions	EHR Condition	IsVisibleOnPatientCard
Allergies	Known allergies or intolerances.	EHR AllergyIntolerance	IsVisibleOnPatientCard

Display Name	Description	Object	Field
Last Encounter	Description and date of last medical interaction.	EHR Encounter	IsVisibleOnPatientCard

SEE ALSO:

   Salesforce Help: Build a Formula Field

Override Custom Labels

The custom labels that are delivered with Health Cloud package can't be edited, but you can override them by creating a translated version of the label.

To override custom labels, you must enable the Translation Workbench and add English as a supported language.

1. From Setup, enter `Custom Labels` in the `Quick Find` box, then select **Custom Labels**.

2. Select the name of the custom label to open.

3. In the Translations related list, click `New` to override the existing label by creating a new translation.

4. Select the language you are translating into. Since Health Cloud is currently not localized, select English.

5. Enter the `Translation Text`. This text overrides the value specified in the label's `Value` field.

IN THIS SECTION:

   Localize Labels in Multilingual Orgs

   If you have a multilingual org, use the Translation Workbench to localize the labels in the Health Cloud console. Specify languages you want to translate, create translations for customizations you've made, and override the labels in Health Cloud.

SEE ALSO:

   Salesforce Help: Enable and Disable the Translation Workbench

Localize Labels in Multilingual Orgs

If you have a multilingual org, use the Translation Workbench to localize the labels in the Health Cloud console. Specify languages you want to translate, create translations for customizations you've made, and override the labels in Health Cloud.

> 📝 **Note:** Labels that appear in the timeline, patient card, or card view menu can't be translated using the Translation Workbench. Instead, you add new custom labels for the values in the language that replace the delivered English values.

Custom labels are custom text values that can be accessed from Apex classes, Visualforce pages, or Lightning components. The values can be translated into any language Salesforce supports. Custom labels enable developers to create multilingual applications by automatically presenting information (for example, help text or error messages) in a user's native language.

1. To access custom labels, from Setup, enter `Custom Labels` in the `Quick Find` box, then select **Custom Labels**.

2. Create a view that shows the labels that you want to localize.

   This example shows a view with custom labels that include the word `Patient`.

3. Select the name of the custom label you want to translate.

4. In the Translations related list, click **New** to enter a new translation or **Edit** next to the language to change a translation. If you click **Delete**, Salesforce confirms that you want to delete, then removes the translation from the custom label.

5. Select the `Language` you are translating into.

6. Enter the `Translation Text`. This text overrides the value specified in the label's `Value` field when a user's default language is the translation language.

7. Click **Save**.

Configure the Timeline View

You can add or remove healthcare events from the timeline view to provide your care coordinators with precisely the information they need to be more effective in managing their patients.

Watch a Demo: ▶ Add Events to the Patient Health Timeline

On the Timeline View Configurations tab, add different events to the timeline by exposing fields on custom or standard object. Then, select icons to represent the data.

1. From the Health Cloud - Admin Home page, select the Timeline View Configurations tab, and click **New**.

2. Enter the following:

Field	Description
`Timeline View Configuration Name`	Name of the timeline event. This name appears only on setup pages.
`Object Category`	Name of the category of objects that this event is related to. Use this field to create a group of events. This name appears in the Select All Events menu in the timeline. By default, all pre-configured objects are either `Engagement Data` or `Medical Data`.
`Friendly Name`	Label that appears in the timeline for the event. 📝 **Note:** The text in this field isn't available for localization using the Translation Workbench. To have this text appear in another language, clone the configuration record and enter the text using the language you want to display. Then, set the `Language` field of the new record to that language. The system displays the label text that matches the user's language setting.
`Object Name`	Name of the object that contains the field that is shown in the timeline. To ensure correct results, use the exact spelling of the object—for example, EhrMedicationPrescription__c.
`Detail Field`	Name of the field to display as an event in the timeline.
`Position Field`	Date field that the system uses to position the event horizontally on the correct date on the timeline.

Field	Description
`Graphical Icon`	Name of the image file that represents the event on the timeline. Upload the image file to the Health Cloud Assets folder in the Documents tab.
	Note: For images to display with the best results in the timeline, they must be within the recommended file and frame size. The recommended file size is up to 1 MB. Salesforce scales the image to roughly 48 x 48 pixels, so smaller images, and images with an aspect ratio of 1:1 (square) provide the best results.
`Sort Order`	Indicates the vertical order that the events appear when the timeline has more than one event on the same date.
	Note: If you clone a configuration record so that you can localize the label, then also modify the sort order. Since you can't have two records with the same assigned sort order, create a different version number for the new record. For example, if the English record has *3* in the `Sort Order` field, then assign the Spanish version *3.1*.
`Active`	Select to activate this field and have it appear on the timeline.
`Patient Account Lookup`	Name of the lookup to display on the timeline when multiple lookups to Account exist. The default for this field is Account__c.
	Note: To use delivered Account lookups for standard objects like Contact or Task, you must append *Id* to the lookup field name. For example, to configure a lookup from Contact to Account, use *AccountId* in this field. Similarly, for a lookup from Task to What, use *WhatId*.
`Language`	The setting that specifies the language of the text in the `Friendly Name` field.
`Language Code`	The code that specifies the language of the text in the `Friendly Name` field.
`Show on Load`	Select to have this event appear by default on the timeline when the page first loads.
	All timeline configurations that have the `Active` checkbox selected are available to appear on the timeline when they're selected using the events filter. But only those configuration records with the `Show on Load` setting selected appear on the timeline by default.

> **Note:** If you don't see the `Language` and `Language Code` fields on the list view, add the fields to the page layout and to the patient account lookup. Then, refresh the page by selecting `All` and clicking **Go!**.

> **Example:** For example, to display prescriptions, use the EhrMedicationPrescription__c object.

Field	Description
Timeline View Configuration Name	Prescriptions
Object Category	Medical Data
Friendly Name	Prescriptions
Object Name	EhrMedicationPrescription__c
Detail Field	MedicationName__c
Position Field	DateWritten__c
Graphical Icon	timeline_icon_pill_png
Sort Order	2
Patient Account Lookup	Account__c.

IN THIS SECTION:

Upload Timeline View Icons

When you add information from custom objects or fields to the timeline view, make sure to include an icon for the timeline that lets care coordinators understand the type of event that's represented.

Upload Timeline View Icons

When you add information from custom objects or fields to the timeline view, make sure to include an icon for the timeline that lets care coordinators understand the type of event that's represented.

> **Note:** For images to display with the best results in the timeline, they must be within the recommended file and frame size. The recommended file size is up to 1 MB. Salesforce scales the image to roughly 48 x 48 pixels, so smaller images, and images with an aspect ratio of 1:1 (square) provide the best results.

1. From the Health Cloud - Admin Home page, select the Documents tab, and click **New**.

2. On the Upload New Document page, specify a descriptive document name for the image file. To use the file name, leave this field blank. The file name appears automatically when you upload the file.

3. Enter a unique name to be used by the API.

4. To have the image appear in the timeline, select `Externally Available Image`.

5. Select the **Health Cloud Assets** folder for the file.

6. Enter a description and keywords to use later as search criteria.

7. Select the option to upload the image file. Click **Choose File**, choose the file, and click **Open**.

EDITIONS

Health Cloud is available in Salesforce Classic

Available in: **Enterprise**, **Performance**, and **Unlimited** Editions

USER PERMISSIONS

To upload new documents:
- "Create" on documents

8. Click **Save**.

Customize the Delivered Care Team Roles

The roles that people have in the healthcare world are incredibly varied. So we've given you the flexibility to change the standard Health Cloud roles to ones that reflect how your organization works.

What if your organization is an extended care facility and call the people you manage residents rather than patients? Or instead of care coordinators, you have case managers who interact with patients. It's easy to change the text that appears throughout the app.

From Setup, enter `Custom metadata` in the `Quick Find` box, then select **Custom Metadata Types**, then select `Health Cloud Settings`. Clone the `Careplan Role Care Coordinator` setting or the `Careplan Role Patient` setting. Modify the `Setting Value` field to reflect your customized role name. Then, deactivate the original setting and make the new record active.

> **Note:** When you change the role settings, make sure to also update the corresponding roles in the Assigned To picklist for the Care Plan Template Task object. When you change role names, existing tasks retain the original role names in the Assigned to field. You can edit these tasks to change to the new name.

Use Custom Metadata Settings to Configure Health Cloud

You can add or replace fields in many of the components of Health Cloud using custom metadata.

Setting	Controls
Group Record Type Mapper	Used to configure a custom household or group record type.
	See GroupRecordTypeMapper in the *Health Cloud Object Reference Guide* for more information.
HcHelpTray	Reserved for internal use.
Health Cloud Settings	A generic dictionary for Health Cloud specific app configuration key value pairs.
	See Manage Health Cloud Settings for more information.
Individual Record Type Mapper	Used to configure a custom individual record type.
	See IndividualRecordTypeMapper
Risk Score Age Band Continued Enrollee	Lookup table of age groups for patients who have been enrolled in Medicare for more than a year. For example, patients who are between 35–44 years old and patients who are 60–64 are in two different age bands. This information is used in risk calculation scoring.

Setting	Controls
Risk Score Age Band New Enrollee	Lookup table of age groups for patients who are newly enrolled in Medicare. For example, patients who are between 35–44 years old and patients who are 60–64 are in two different age bands. This information is used in risk calculation scoring groups.
Risk Score HCCCode	Lookup table for Hierarchical Condition Category (HCC) codes and risk scores.
Risk Score Disease Interaction	Lookup table with disease interaction scores. This information is used in risk calculation scoring.
Risk Score Medicaid Interactions	Lookup table with disease interaction scores for patients who are enrolled in both Medicare and Medicaid. This information is used in risk calculation scoring.

To change the settings, deactivate the setting in Health Cloud Settings. Then, clone the setting record keeping the Setting Name, make your changes, and then make that record active.

1. From Setup, enter *Custom metadata* in the Quick Find box, then select **Custom Metadata Types**.

2. Click **Manage Records** next to **Health Cloud Settings**.

3. Click **Edit** in the row for the setting you want to override or change.

4. Deselect the Active checkbox, and then click Save.

5. Click the name of the setting you want to override.

6. Click Clone, create a settings record using the exact text found in the Setting Name field of the cloned record, and make the record active.

IN THIS SECTION:

Manage Health Cloud Settings

Health Cloud Settings contains a variety of key/value pairs of configuration settings for the Health Cloud application. You can de-activate the delivered settings and create new settings to fit your business needs.

Configure Custom Record Types for Individuals or Groups

Health Cloud gives you the flexibility to configure custom individual and household (group) record types. For example, custom record types let you add doctors as a type of individual or hospitals as a group record type. You can easily configure a custom record type based on the default individual or group record type provided by Health Cloud.

SEE ALSO:

Customize the Delivered Care Team Roles

Manage Health Cloud Settings

Health Cloud Settings contains a variety of key/value pairs of configuration settings for the Health Cloud application. You can de-activate the delivered settings and create new settings to fit your business needs.

Setting	Controls
`Careplan_Role_Care_Coordinator`	Label `Care Coordinator` that appears throughout the app
`Careplan_Role_Patient`	Label for `Patient` that appears throughout the app.
`HcFeatureDriver`	Defines whether a contact or account record appears for a patient in the Details tab of the console.
`HcHelpTray`	Reserved for internal use.
`HcFieldSet_AddMember`	Adds an external care team member.
`HcFieldSet_CandidatePatientListView`	Fields that appear on the list view for candidate patients.
`HcFieldSet_GoalDefaultFieldSet`	Fields that appear as part of care plan goals.
`HcFieldSet_ProblemDefaultFieldSet`	Fields that appear as part of care plan problems.
`HcFieldSet_TaskListDefaultFieldSet`	Columns that appear in the patient task list.
`PatientCreateFlow_default`	Patient creation job flow.
`PatientCreateMappingGroup_default`	Patient creation data mappings.

1. From Setup, enter `Custom Metadata` in the `Quick Find` box, then select **Custom Metadata Types**.
2. Click **Health Cloud Setting**, then click **Manage Health Cloud Settings**.
3. Click name of the setting you want to change and click **Edit**.
4. Clear the `Active` checkbox and then click **Save**.
5. Navigate back to the Health Cloud Settings page, and click **New**, and fill out the information for your custom setting.

    Make sure to use the same `Setting Name` as the default setting that you are overriding. For example, `Careplan_Role_Patient`, if you are creating your own label for patients.

6. Select the `Active` checkbox to make the setting available.

Configure Custom Record Types for Individuals or Groups

Health Cloud gives you the flexibility to configure custom individual and household (group) record types. For example, custom record types let you add doctors as a type of individual or hospitals as a group record type. You can easily configure a custom record type based on the default individual or group record type provided by Health Cloud.

To configure a custom individual record type, create a custom account record type using the Account (Patient) Layout and then create a custom contact record type using the Contact (Patient) Layout. To configure a custom household or group record type, you must first create a custom account record type using the Account (Household) Layout.

1. From Setup, enter `custom` in the `Quick Find` box, then select **Custom Metadata Types**.

2. To configure an individual record type, click **Individual Record Type Mapper**. To configure a household or group record type, click **Group Record Type Mapper**.

3. Depending on your record type, click either **Manage Individual Record Type Mappers** or **Manage Group Record Type Mappers**.

4. Click **New**.

5. Complete the following information for the record type mapper.

   a. Enter the `Label` for your custom record type mapper.

      The `Individual Record Type Mapper Name` is filled automatically based on this label. Keep it the same as the label.

   b. For `Account Record Type`, enter your custom account record type name.

      This name is the same as your custom record type.

   c. Enter the account namespace for your custom record type's org.

   d. For `Contact Record Type`, enter your custom contact record type name.

   e. Enter the contact namespace for your custom record type's org.

   f. Enter the `Lead Record Type` to be used when converting Lead records.

      Leave this field blank to use the Master record type. If a master record type isn't found, all available record types are converted to an Individual record type.

   g. Enter the lead namespace for your custom record type's org.

6. Save your changes.

Customize Problems and Goals

With fields sets, you can add custom fields or change the order of existing fields on the pages used to create problems and goals.

> 📝 **Note:** The delivered problem and goal pages make use of a packaged field set, which lets you choose the fields and the order in which fields appear on these pages. The delivered pages aren't available for edit through the page layout editor.

Customize the fields that show up on the pages care coordinators use to create problems and goals for the care plan. Problems and Goals are both custom objects, and you can add custom groupings of fields by leveraging Salesforce field sets. A field set is a grouping of fields you create and then add to an object.

After you create the field sets, you add them to the default field set for that object in the Custom Labels page. For example, to add fields to the Problems page, you modify the defaultFieldSet for Problems.

1. From Setup, enter *Object* in the `Quick Find` box, then select **Objects**, and select either the Problem custom object or the Goal custom object.

2. From the management settings for the appropriate object, go to Field Sets, and then click **New**.

3. Enter a **Field Set Label**. This is the name presented to subscribers who install the field through a managed package.

4. Optionally, enter a name for your field set.

5. In the **Where is this used?** area, provide a brief description of which pages use the field set, and for what purpose. This information helps a subscriber understand where and how an installed field set is being used, so that they can populate it with their own fields

6. Save your changes.

7. To add fields to the field set, drag the fields from the object palette and drop them into the `Available for the Field Set` or the `In the Field Set` container. The fields in the `In the Field Set` container are visible by default.

> 📝 **Note:** In the field set, you can span to fields that reference multiple objects. When you span a field into a field set that references multiple objects, the only field you can span to is the `Name` object.

You can drag and drop a field from one container to the other. The vertical order of the `In the Field Set` list indicates the order of how the fields render on pages.

8. To remove a field from the field set, drag the element back to the object palette, or click the ⊖ icon next to the element.

9. To make a field required, double-click the element or click the wrench icon (🔧) next to it and select the `Required` checkbox.

> 📝 **Note:** ✱ Indicates the field is required and must have a value to save the record.

Customize Tasks

Customize the fields on the New Task page so that the field values reflect the kinds of tasks care coordinators most often assign, and use rating terminology specific to your organization.

You can add to or change the values for the following picklists on the New Task page:

- Status
- Priority
- Task Type

IN THIS SECTION:

Add Custom Task Types
Custom task types help your care coordinators create tasks that are specific to the type of patient care that they deliver. For example, for an outpatient orthopedic surgery center, task types could include `Pre-Op Lab Work` or `Weekly PT`.

Add or Edit Task Priority Values
You can change the values that appear in the Priority field that shows the importance of a task.

Add or Edit Task Status Values
You can change the values that appear in the Status field that shows the progress or measures the completion of a task.

Customize the Task List View
Use field sets to customize the columns in the list view for tasks associated with a care plan.

Add Custom Task Types

Custom task types help your care coordinators create tasks that are specific to the type of patient care that they deliver. For example, for an outpatient orthopedic surgery center, task types could include `Pre-Op Lab Work` or `Weekly PT`.

Plan carefully when you create task types so that there aren't a large number of choices in the picklist.

1. From Setup, enter `Activity Custom Fields` in the `Quick Find` box.

2. Click **Task Type**.

3. In the Picklist Values section, click **New**.

4. Add one or more picklist values in the text box. Put each value on its own line

5. Select `Care Plan Task` so that the new values are associated with the Task Type picklist.

6. Click **Save**.

7. To change the order in which the values display in the picklist, click **Reorder**.

8. To specify a default value for the picklist, select the `Default` checkbox for that task type.

Add or Edit Task Priority Values

You can change the values that appear in the Priority field that shows the importance of a task.

1. From Setup, enter `Task` in the `Quick Find` box and select `Task Fields`.

2. In the Task Standard Fields list, click **Priority**.

3. To add a value to the list, click **New**.

4. Add one or more picklist values in the text box. Put each value on its own line

5. Select `Care Plan Task` so that the new values are associated with the care plan.

6. Click **Save**.

7. To change the order in which the values display in the picklist, click **Reorder**.

8. To specify a default value for the picklist, select the `Default` checkbox for that priority.

9. Select the value that represents the highest priority for the task.

Add or Edit Task Status Values

You can change the values that appear in the Status field that shows the progress or measures the completion of a task.

1. From Setup, enter `Task` in the `Quick Find` box and select `Task Fields`.

2. In the Task Standard Fields list, click `Status`.

3. To add a value to the list, click **New**.

4. Add one or more picklist values in the text box. Put each value on its own line

5. Select `Care Plan Task` so that the new values are associated with the care plan.

6. Click **Save**.

7. To change the order in which the values display in the picklist, click **Reorder**.

8. To specify a default value for the picklist, select the `Default` checkbox for that status.

9. To select a value that closes the task, select the `Closed` checkbox for that status.

Customize the Task List View

Use field sets to customize the columns in the list view for tasks associated with a care plan.

A field set is a grouping of fields you create and then add to an object. You can add fields that are delivered with the Health Cloud package using these steps. To add your own custom fields to the task list, use the HcFieldSet_TaskListDefaultFieldSet found in Health Cloud Settings.

1. From Setup, enter `Task` in the `Quick Find` box, then select **Task Field Sets**.

2. Select the HC Task List field set and click **Edit**.

3. To add fields to the field set, drag the fields from the object palette and drop them into the `Available for the Field Set` or the `In the Field Set` container. The fields in the `In the Field Set` container are visible by default.

4. Save your work.

SEE ALSO:

Manage Health Cloud Settings

Customize the Create External Member Fields

You can customize the fields that appear on the modal that care coordinators use to create an external care team member.

Use field sets to add new fields or change the order of existing fields used to create external care team members.

1. From Setup, enter `Accounts` in the `Quick Find` box, then select **Field Sets**.

2. Select `Edit` next to the New External Member field set.

3. Drag and drop the fields you want to display on the New External member modal.

> Note: You can only add fields from Account and the related primary contact. Fields from other related objects will be ignored.

4. Click **Save**.

Customize the Candidate Patient List View

You can customize the fields that appear on the list view that care coordinators use to convert candidate patients to patients in Health Cloud.

Use field sets to add new fields or change the order of existing fields used in the candidate patient list view.

1. From Setup, enter *Objects* in the `Quick Find` box, then select Objects.

2. On the Custom Object page, select the Candidate Patient custom object.

3. Scroll to the Field Sets section and click `Edit` next to the Candidate Patient List View.

4. Drag and drop the fields you want to display on the Candidate Patients list view.

   Note: The following fields must be included in the field set and should not be deleted:

   - Record ID (Id)
   - Name (Name__c)
   - Patient Account (AccountId__c)
   - Patient Account Name (AccountId__r.Name)
   - Patient Account Primary Contact (AccountId__r.PrimaryContact__c)

5. Click **Save**.

Add Cross-Object Relationships to Customize Patient List Filter Options

Cross-object relationships control which objects and fields appear in the filter selection options when creating patient lists.

Health Cloud delivers a basic set of filters that you can use when you define a patient list. To add other custom records to the patient list filter options, create relationships that link records with each other. When your users view records, they can also see related data. You can define different types of relationships by creating custom relationship fields between objects. For example, to add fields related to patient immunizations to the patient list filters, you create a relationship between Account and EhrImmunization__c.

Before creating relationships, determine which fields you want to expose in the filter and which object exposes those fields. Relationships between objects in Health Cloud determine sharing, required fields in page layouts, and which fields are available when you create a patient list.

   Note: The Account object must be one of the two objects in your cross-object relationship.

To see a list of Health Cloud objects and fields, see the *Health Cloud Object Reference Guide*.

1. To create the relationship that adds a custom object to the patient list filter criteria, select the **Cross Object Relationships** tab.

2. Specify the details of the relationship:

Field	Description
Cross Object Relationship Name	Name that describes the relationship.
From Object	Name of the parent object. This is a required field and in Health Cloud, the object must be *Accounts*.
To Object	Name of the child object to include as an option in patient list filter criteria.

Field	Description
Relationship	Optionally, the name of the custom relationship.
Reverse Relationship	Optionally, the name of the object that is the originating or "from" object.

The following table shows some of the cross object relationships that are pre-configured with Health Cloud. You can use this table as a reference to create other cross-object relationships and make more records and fields available when creating patient lists.

Cross Object Relationship Name	From Object	To Object
AccountToContact	Account	Contact
AccountToObservation	Account	EhrObservation__c
AcountToEncounter	Account	EhrEncounter__c
AccountToEhrMedicationPrescriptions	Account	EhrMedicationPrescription__c
AccountToCondition	Account	EhrCondition__c

Dashboards Give Your Users Access to the Big Picture

Set up your reporting environment, use the report builder to create a basic report, and organize your reports to make it easy to find information. You can also find great dashboard apps on the Salesforce AppExchange and add them to the console.

People love the summarized views they get with dashboards, and you can help care coordinators optimize their workload with dashboards. A dashboard shows data from source reports as visual components, which can be charts, gauges, tables, metrics, or Visualforce pages. The components provide a snapshot of key metrics and performance indicators for your organization. Each dashboard can have up to 20 components.

You can start with a standard report and customize it to your needs. Users can report on any data they have read or read/write access to.

For a fun and engaging learning experience, check out the *Reports & Dashboards* module in the Trailhead Admin Beginner trail.

To save you time, there are many apps available on the AppExchange that you can download and customize. The following sample dashboard was created using the Salesforce Labs Service & Support Dashboards. Search the AppExchange to find the best app for your needs.
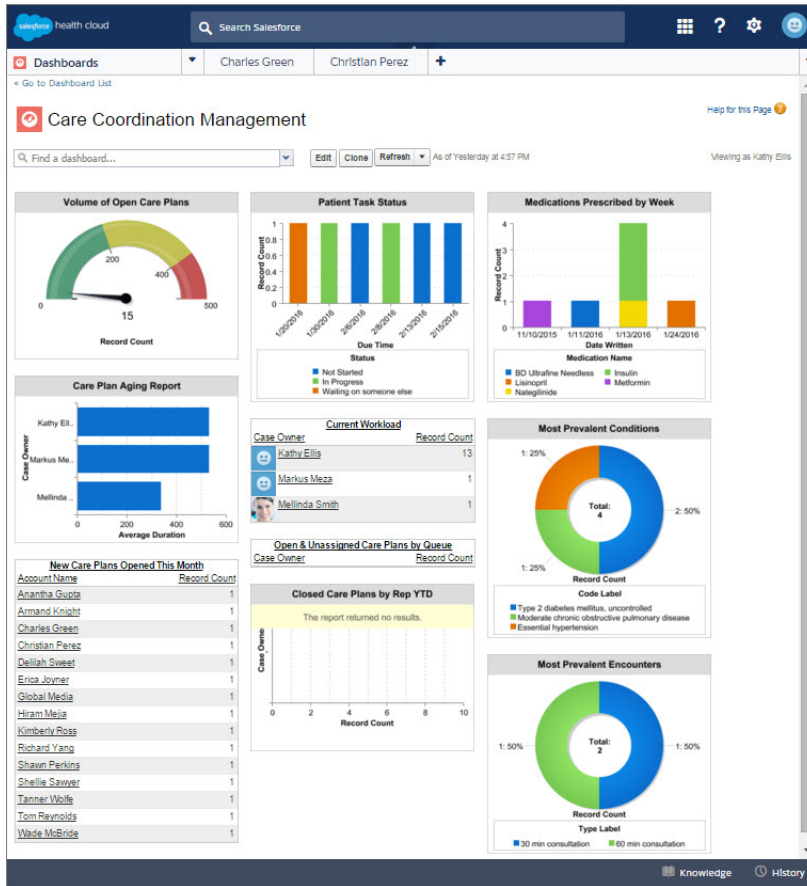
Once you create your dashboard, remember to add it to the console so that care coordinators can use the tab switcher to access the dashboard. From Setup, enter `Apps` in the `Quick Find` box, then select **Apps**. Select the Health Cloud app you want to customize and then add it as a navigation tab item.

Create a Care Plan Template

You can create a care plan template within Salesforce by adding problems, goals, and tasks to a care plan template.

To create a care plan template along with its associated problems, goals, and tasks, use the Care Plan Templates tab. Make sure to add the profiles of any users who create templates and add the tab to the Health Cloud custom apps. You can include any additional fields you need to the Care Plan Template object's page layout.

1. From the Health Cloud - Admin Home page, select the Care Plan Templates tab, and click **New**.

2. Enter the following:

<div style="float:right; border:1px solid #ccc; padding:10px;">

EDITIONS

Health Cloud is available in Salesforce Classic

Available in: **Enterprise**, **Performance**, and **Unlimited** Editions

</div>

Field	Description
Care Plan Template Name	Name of the care plan template.
Description	Provide a brief description of the template and its intended use.

Field	Description
Active	Select to activate this care plan template and make it available to apply to a patient.
Cloned From	Name of the original template that this template was cloned or copied from.

3. Click **Save**. The Care Plan Template Problems tab opens.

4. In the Care Plan Template Problems tab, click **New Care Plan Template Problem**.

5. Enter the following:

Field	Description
Care Plan Problem Name	Name of the problem for the care plan template.
Care Plan Template	Name of the care plan template this problem is related to.
Description	Provide a brief description of the problem that is being addressed.
Active	Select to activate this care plan problem and make it available to apply to a patient.
Sort Order	Indicates the vertical order in which this problem appears on the care plan template.
Priority	The priority of the care plan problem such as low, normal, or high.

6. Click **Save** to open the Care Plan Template Goal tab and create a goal. Click **Save & New** to create more problems.

7. In the Care Plan Template Goals tab, click **New Care Plan Template Goal**.

8. Enter the following:

Field	Description
Care Plan Template Goal Name	Name of the goal associated with the care plan template.
Description	Provide a brief description of the template and its intended use.
Active	Select to activate this care plan goal and make it available to apply to a patient.
Sort Order	Indicates the vertical order in which this goal appears within the list of goals.
Priority	The priority of the care plan goal such as low, normal, or high.
Template Problem	Name of the template problem that this goal is related to.

9. Click **Save** to open the Care Plan Template Task tab and create a task. Click **Save & New** to create more goals.

10. In the Care Plan Template Tasks tab, click **New Care Plan Template Task**.

11. Enter the following:

Field	Description
Care Plan Template Task Name	Name of the task associated with care plan template.
Subject	The subject or name of the task.
Active	Select to activate this care plan task and make it available to apply to a patient.
Assigned To	Name of the person who's assigned to the task.
Care Plan Template Goal	Name of the template goal that this task is related to.
Priority	The priority of the care plan task such as low, normal, or high.
Description	A description of the task.
Sort Order	Indicates the order in which tasks are sorted in the list of tasks.
Status	The status of the care plan task such as in progress, complete, or new.
Offset	The number of days to add as an offset date. Tasks that have an offset date add the assigned number of days to the task start date. For example, if the care plan start date is December 9 and a task offset is +7 days, the task's due date is December 16.

Use Data Loader to Import Care Plan Templates

Use Data Loader to make import existing care plan templates into Salesforce and make them available to care coordinators.

Data Loader is a client application for the bulk import or export of data. Use it to insert, update, delete, or export Salesforce records.

When importing data, Data Loader reads, extracts, and loads data from comma-separated values (CSV) files or from a database connection. When exporting data, it outputs CSV files.

To import existing care plan templates, create a CSV file for each of the target objects in a care plan template: care plan template, care plan problems, care plan goals, and care plan tasks. Each of the child CSV files must include the record type ID of the parent object. Make sure to include all required fields in the CSV file for each object. For a list of the fields you must include, see Create a Care Plan Template.

Import the CSV files in the following sequence.

1. Care plan template
2. Care plan problems
3. Care plan goals
4. Care plan tasks

Check Considerations for Installing Data Loader for system requirements and other prerequisites to using Data Loader.

1. From Setup, enter `Data Loader` in the `Quick Find` box, then select **Data Loader**.

2. Download and configure Data Loader for the correct version of your operating system.

   For more information, see Configure Data Loader.

3. Open the Data Loader and click **Insert**.

4. Enter your Salesforce username and password. Click **Log in**. After your login completes successfully, click **Next**. (Until you log out or close the program, you are not asked to log in again.)

5. Select name of the object to receive the imported data. If the object name does not display in the default list, check `Show all objects` to see a complete list of the objects that you can access.

6. Click **Browse...** and select the CSV file that contains the template information that you're importing.

7. Click **Next**.

   After the object and CSV file are initialized, click **OK**.

8. Define how the columns in your CSV file map to Salesforce fields. Click **Choose an Existing Map** to select an existing field mapping, or click **Create or Edit a Map** to create a map or modify an existing map. For more details and an example of usage, see Define Data Loader Field Mappings.

9. Click **Next**.

10. For every operation, the Data Loader generates two unique CSV log files; one file name starts with "success," while the other starts with "error." Click **Browse...** and specify a directory for these files.

11. To perform the operation, click **Finish**, and then click **Yes** to confirm.

12. As the operation proceeds, a progress information window reports the status of the data movement.

13. After the operation completes, a confirmation window summarizes your results. To view the success file, click **View Successes**, and click **View Errors** to open your errors file, or click **OK** to close.

HEALTH CLOUD LIMITATIONS

Learn about display, access, and customization limitations for Health Cloud.

Display Limitations

Health Cloud is only available in Microsoft® Internet Explorer® 10, or 11; Microsoft® Edge; the most recent stable version of Mozilla® Firefox®; the most recent stable version of Apple® Safari®, and the most recent stable version of Google Chrome™.

> 💡 Tip: For best performance, we recommend that console users adopt the Google Chrome™ browser and machines with 8 GB of RAM.

Platform Encryption Limitations

Encrypted fields can't be used as filter or sort criteria.

Encrypted data is unmasked and visible to Health Cloud users. We recommend using object-level security and field-level security to restrict the visibility of sensitive data.

Event monitoring doesn't log which patients appear on the Today page, the Patient List pages, or the Candidate Patients page. Event monitoring does log that a user went to those pages, but doesn't log the details on what is displayed on those pages. However, when you select a patient to view in the Health Cloud console, it logs the ID of that patient.

Behavior and Access Limitations

Health Cloud doesn't meet accessibility requirements.

When you add a task to the care plan, it doesn't appear on the Timeline until you refresh the Timeline. Refresh the Timeline by selecting the Timeline from the Patient Card tab switcher.

When you add a task to the care plan, it doesn't appear on the Today page until you refresh the Today page. You can refresh the Today page by refreshing your browser.

You can't sort a column in a list that is based on an encrypted field.

List view pages display up to 500 patients per page. Sort and search features apply to the data within a single page in the patient list.

Long text fields (such as description fields) and the Address field aren't supported as filter criteria when creating a patient list. To filter on an address, use sub-fields such as the Street field.

Localization Limitations

Health Cloud supports the following languages: Dutch, English (United Kingdom), French, German, Portuguese (Brazil), Spanish, and Spanish (Mexico) (es_MX).

The column names in the Patient List aren't localized and in the language used to create them. So if the labels for column names were created in an English org, they only display in that language.

Users can edit the Patient List only when they have the same language and locale as the org in which the list was created. When a someone edits a list created in a language different from their own, they receive an error.

The delivered All Patients list appears in English only.

The Record Type Description field can't be translated.

The Category and Sub-Category fields in the Patient Card Menu can't be localized using the Translation Workbench. To display the labels in another language, deactivate or delete the delivered field configuration record. Then, create a different field record in the language for that org.

The Friendly Name field used as a display label in the Timeline and Patient Card can't be localized using the Translation Workbench. To display the labels in another language, create a different field record in the language for that org and set the language field to the new label's language.

WAVE FOR HEALTH CLOUD: RISK STRATIFICATION

Wave for Health Cloud: Risk Scoring lets your company identify patients with highest risk. You can use this information to proactively manage those patients and provide preventive care to reduce over-consumption of expensive healthcare resources. You can install the package after you install and implement the core Health Cloud package. Wave for Health Cloud includes embedded dashboards that connect with the Heath Cloud risk scoring tables to calculate risk scores based on the CMS-Hierarchical Condition Category (HCC) risk adjustment model.

Note: Each Health Cloud org gets five Wave app permission set licenses. Available in English only. Localization isn't supported. All users see the same date, time, and number formats, regardless of their own local and language settings.

Additionally, if you are using the Wave Risk Scoring App, add the related tabs to the Health Cloud app and ensure that each user profile can see the tabs by default.

IN THIS SECTION:

Once you've set up the core features of Health Cloud, perform these steps to install and configure Wave for Health Cloud.

Upgrade Picklist Values and Page Layouts for Wave

When you upgrade an existing Health Cloud org to use Wave for Health Cloud, you must add extra picklist values to the Account record type. Also, make sure to add extra fields to the page layouts for objects that are used to calculate patient risk scores.

Add Risk Scoring Record Types to the Admin Profile

To expose CMS Risk Scoring data in a Wave dashboard, you must add the associated record types to the Health Cloud admin profile.

Health Cloud Risk Scoring Data Tables

There are several Health Cloud tables that hold the information that is used to aggregate and calculate patient data. Once calculated, this information appears in Wave dashboards so that your company can make informed decisions about patients who fall into categories that are at risk.

Recalculate Patient Risk Scores

You can recalculate patient Centers for Medicare and Medicaid Services (CMS) risk scores in Health Cloud with a batch Apex job using the `HcCMSRiskScoringScheduledJob` class. You can either run the job manually as needed or schedule it.

Set Up Wave for Health Cloud

Once you've set up the core features of Health Cloud, perform these steps to install and configure Wave for Health Cloud.

IN THIS SECTION:

Enable Wave Analytics

To get started configuring Wave for Health Cloud, enable Wave Analytics.

Enable a Permission Set License for the Admin

Enable the Wave Analytics permission set license to create a permission set for Health Cloud admins.

Create a Permission Set for the Health Cloud Wave Analytics Admin

After you've enabled the Wave Analytics permission set license, create a permission set to assign to the Health Cloud Wave Analytics admin user. This permission set enables full access to manage Wave for Health Cloud.

Assign the Health Cloud Wave Analytics Admin Permission Set

Assign the Health Cloud Wave Analytics Admin permission set to give your Health Cloud admin access to all Wave for Health Cloud functionality.

Install the Wave Risk Stratification Package

The Wave for Health Cloud Risk Stratification package contains functionality for the Wave risk scoring dashboards for Health Cloud.

Assign the Health Cloud Wave Integration Permission Set

To give Wave for Health Cloud access to all your Salesforce org data, assign the Health Cloud Wave Integration permission set to the integration user.

Confirm Field-Level Security

The Analytics Cloud Integration User profile requires read permission on specific object fields so that Wave for Health Cloud: Risk Stratification can access data from your org.

Create a Permission Set for Wave Users

Create a permission set that enables view access to the dashboard. You can also grant permission for users to download a .CSV file of the patient lists that are generated in the dashboard.

Enable View Access for Health Cloud Wave Users

Enable access for users to view the Wave for Health Cloud: Risk Stratification. Users who are assigned a Health Cloud Wave permission set can then access Wave Analytics from the App picker.

Schedule and start the dataflow so that your risk scoring data can be refreshed daily.

Upload extended metadata (XMD) files to make sure that all custom colors, labels, and quick actions are available for dashboards in Wave for Health Cloud.

Enable Wave Analytics

To get started configuring Wave for Health Cloud, enable Wave Analytics.

1. From Setup, enter *Wave* in the `Quick Find` box, then select **Wave Analytics** > **Getting Started**.

2. Click **Enable Analytics**.

Enable a Permission Set License for the Admin

Enable the Wave Analytics permission set license to create a permission set for Health Cloud admins.

1. From Setup, enter *Users* in the `Quick Find` box, then select **Users**.

2. Click the user name with the System Administrator profile.

3. Click **Permission Set License Assignments** and then click **Edit Assignments**.

4. Enable the **Analytics Cloud - Wave Analytics Platform** permission set license.

5. Save your changes.

Create a Permission Set for the Health Cloud Wave Analytics Admin

After you've enabled the Wave Analytics permission set license, create a permission set to assign to the Health Cloud Wave Analytics admin user. This permission set enables full access to manage Wave for Health Cloud.

> 📝 **Note:** This permission set is different from the delivered Health Cloud Wave Admin permission set. The Health Cloud Wave Admin permission set grants access to the algorithm that is used for risk scoring.

1. From Setup, enter *Permission* in the `Quick Find` box, then select **Permission Sets**.

2. Click **New**.

3. Enter a name for the role, such as Health Cloud Wave Analytics Admin.

4. For License, select **None**.

5. Save your changes.

6. On the Permission Set Overview page, click **System Permissions**.

7. Select **Manage Wave Analytics**.

8. Save your changes.

Assign the Health Cloud Wave Analytics Admin Permission Set

Assign the Health Cloud Wave Analytics Admin permission set to give your Health Cloud admin access to all Wave for Health Cloud functionality.

1. From Setup, enter *Permission* in the `Quick Find` box, then select **Permission Sets**.

2. Click the Health Cloud Wave Analytics Admin permission set and then click **Manage Assignments**.

3. Click **Add Assignments**.

4. Select the admin users who will manage Wave for Health Cloud.

5. Click **Assign** and then click **Done**.

Install the Wave Risk Stratification Package

The Wave for Health Cloud Risk Stratification package contains functionality for the Wave risk scoring dashboards for Health Cloud.

Make sure that you've installed and configured Health Cloud before installing the Wave for Health Cloud Risk Stratification package.

1. Paste the following URL for the package into your browser navigation bar: http://industries.force.com/healthcloudwave.

2. Press **Enter**.

3. Enter your Salesforce password.

4. Select **Install for Admins only** and then click **Install**.

If it takes a while, you can select **Done** and move on to do something else while installation finishes. Check your email for confirmation that installation was successful.

5. Verify installation of the package.

    a. From Setup, enter `Installed Packages` in the `Quick Find` box, then select **Installed Packages.**

    b. Look for `Wave for Health Cloud Risk Stratification`.

Assign the Health Cloud Wave Integration Permission Set

To give Wave for Health Cloud access to all your Salesforce org data, assign the Health Cloud Wave Integration permission set to the integration user.

1. From Setup, enter `Permission` in the `Quick Find` box, then select **Permission Sets**.

2. Click **Health Coud Wave Integration** and then click **Manage Assignments**.

3. Click **Add Assignments**.

4. Select the checkbox next to User, Integration.

5. Click **Assign** and then click **Done**.

Confirm Field-Level Security

The Analytics Cloud Integration User profile requires read permission on specific object fields so that Wave for Health Cloud: Risk Stratification can access data from your org.

1. From Setup, enter `Profiles` in the `Quick Find` box, then select **Profiles**.

2. Click **Analytics Cloud Integration User**.

3. In the Field-Level Security section, next to Account, click **View**.

4. Confirm that **Read Access** is selected for all fields. If any fields aren't selected, click **Edit** and select **Read Access** for those fields.

5. Save your changes, and then click **Back to Profile**.

6. Confirm that the following objects also have read access.

- Account

- Contact

Create a Permission Set for Wave Users

Create a permission set that enables view access to the dashboard. You can also grant permission for users to download a .CSV file of the patient lists that are generated in the dashboard.

1. From Setup, enter `Permission` in the `Quick Find` box, then select **Permission Sets**.

2. Click **New**.

3. Enter a label and a description for the permission set.

   For example, `View Wave Dashboard`.

4. For License, select **None**.

5. Save your changes.

6. On the Permission Set Overview page for the new permission set, click **System Permissions**.

7. Select **Use Wave Analytics**. Optionally, select **Download Wave Analytics Data** to let users download a .CSV file of the patient list generated in the dashboard.

   🛑 **Important:** Only grant feature access to individuals who have a valid need to know the PHI of all individuals your company treats.

8. Save your changes.

Enable View Access for Health Cloud Wave Users

Enable access for users to view the Wave for Health Cloud: Risk Stratification. Users who are assigned a Health Cloud Wave permission set can then access Wave Analytics from the App picker.

📝 **Note:** Always allow popups in your browser for your org domain so that the Wave Analytics app can open.

1. From the App Launcher menu, click **Wave Analytics**.

2. From **Apps**, hover over **Wave for Health Cloud** and click **Share** from the dropdown list.

3. Select the users with the Risk Stratification (HCC) permission and can see all patient data.

   🛑 **Important:** Only grant feature access to individuals who have a valid need to know the PHI of all individuals your company treats.

4. Save your changes.

Set Up and Start Risk Scoring Dataflow

Schedule and start the dataflow so that your risk scoring data can be refreshed daily.

If a Wave Analytics user has access to a dataset, they have access to all records in the dataset, by default. Only grant access to individuals who have a valid need to know the PHI of all individuals your company treats. However, you can implement row-level security on a dataset to restrict access to records. To implement row-level security in this dashboard, update the default dataflow to add a row-level security filter to the datasets associated with Account and Contact. These filters can be used to restrict access so that users see only the patients that they can access based on their role. *Row-Level Security for Datasets* provides more information on implementing row-level security for Wave datasets.

1. In Wave Analytics, click the gear icon and then click `Data Manager` to open the data monitor.

2. In the Monitor Data Tasks picklist, select `Dataflow View`.

3. Next to the dataflow with your namespace and `__SalesEdgeEltWorkflow`, select **Schedule** from the dropdown list.

4. Schedule the dataflow for every 1 day at 4 AM, or as needed (hourly or daily).

5. Save your changes and click **Done**.

6. Next to the dataflow with your namespace and `__SalesEdgeEltWorkflow,`, select **Start** from the dropdown list.
    Dataflow is now running and could take time to finish depending on the size of the Wave datasets. Data must be present in the org for dataflow to work. For the initial data flow, the org must contain at least one Provider record with a valid Related Contact record.

Set Up Dashboards

Upload extended metadata (XMD) files to make sure that all custom colors, labels, and quick actions are available for dashboards in Wave for Health Cloud.

🛇 Important: Before starting this task, the dataflow must have finished running at least once.

1. Download the XMD files.

    a. From Setup, enter `Static` in the `Quick Find` box, then select **Static Resources**.

    b. Click **healthcloudwaveresources**.

    c. To download the resources .zip file, click **View File**.

    d. Extract the .zip file of XMD files.

        📝 Note: Record the location of the extracted files.

2. Update the datasets.

    a. From the App Launcher menu, select **Wave Analytics**.

    b. Click the **Datasets** tab.

    c. Next to FinalDashboardDataset, hover and select **Edit** from the dropdown list.

    d. Under Add Extended Metadata File (JSON), click **Select file or drag here**.

    e. From the downloaded and extracted zip folder, upload the FinalDashboardDataset file.

        📝 Note: The XMD file name corresponds with the dataset name.

    f. Click **Update Dataset**.

Upgrade Picklist Values and Page Layouts for Wave

When you upgrade an existing Health Cloud org to use Wave for Health Cloud, you must add extra picklist values to the Account record type. Also, make sure to add extra fields to the page layouts for objects that are used to calculate patient risk scores.

1. Add the custom picklist fields to the Account record type.

    a. From Setup, enter `Account` in the `Quick Find` box, then select **Record Types**.

    b. Select the **Individual** record type.

    c. Click **Edit** for the following picklists and select all available values.

Field	Values
Enrollment Type	Dual, NonDual, FBDual, ESRD
Medicare Enrollee	New Enrollee, Continued
OREC	Age, Disabled

    d. Save your work.

2. Add extra fields to the page layouts for the following objects. You can access the page layout from the object management settings for the object.

Objects	Fields to Add
Account (Patient Layout)	Disabled, Enrollment Type, Institution, Low Income, Medicaid Eligibility Status, Medicare Enrollee, OREC
EHR Encounter	Hospitalize Period End, Hospitalize Period Start, Period End
EHR Conditions	Code Label, Encounter, Source System Modified, Year Documented
Contact (Patient Layout)	Gender

Add Risk Scoring Record Types to the Admin Profile

To expose CMS Risk Scoring data in a Wave dashboard, you must add the associated record types to the Health Cloud admin profile.

1. From Setup, enter `Profiles` in the `Quick Find` box, then select **Profiles**.

2. Select the Health Cloud Admin profile, click **Clone**, and name the new profile.

> 📝 **Note:** If you've already created a custom admin profile, click **Edit** to add the record types.

3. In the Custom Record Type Settings, click **Edit** next to the Program object.

4. Add the `CMS Risk Scoring` record type to the Selected Record Types picklist.

5. Select the `CMS Risk Scoring` as the default record type.

6. Click **Save**.

Health Cloud Risk Scoring Data Tables

There are several Health Cloud tables that hold the information that is used to aggregate and calculate patient data. Once calculated, this information appears in Wave dashboards so that your company can make informed decisions about patients who fall into categories that are at risk.

Health Cloud delivers tables that store the data used to calculate patient risk scores.

Risk Scoring Tables	Contains
Risk Score Medicaid Interactions	Disease interaction scores and originally disabled interactions for patients who are enrolled in both Medicare and Medicaid.
Risk Score Disease Interaction	Disease interactions used to calculate risk scores.
Risk Score HCC Code	Mappings between HCC codes and risk scores.
Risk Score Age Band New Enrollee	Mapping used to calculate risk score for age groups of patients who are newly enrolled in Medicare. For example, patients who are between 35–44 years old and patients who are 60–64 are in two different age bands.
Risk Score Age Band Continued Enrollee	Mappings used to calculate risk score for age groups for patients who have been enrolled in Medicare for more than a year. For example, patients who are between 35–44 years old and patients who are 60–64 are in two different age bands.

IN THIS SECTION:

Manage Mappings Between Conditions and HCC Codes

Salesforce provides the most current mappings between ICD condition and HCC codes. These codes are used to calculated patient risk for the Wave Risk Scoring app. You can add or edit these mappings, but doing so can affect the accuracy of your results.

Manage Programs

Use the Programs tab to manage the relevant data about the programs a patient participates in that are tracked or monitored in Health Cloud.

Manage Program-Patient Affiliations

Manage the associations between patients and the programs they're enrolled in. This record can also link a patient with the providers who care for them within their enrolled programs. You can implement a custom integration or use Data Loader to import historical medical records from the EHR system and map it to the fields that appear in this tab.

View Program Patient Summary Information

View the patient risk score and other summary information about the patient and affiliated programs that's displayed in Wave dashboards. The patient's risk score, along with demographic information such age, gender, disability status, conditions, Medicaid eligibility, HCC codes, and other information is displayed here.

Manage Provider Information

Manage the current healthcare provider names based on information from the EHR Practitioner object, or related contact and user records.

Manage Mappings Between Conditions and HCC Codes

Salesforce provides the most current mappings between ICD condition and HCC codes. These codes are used to calculated patient risk for the Wave Risk Scoring app. You can add or edit these mappings, but doing so can affect the accuracy of your results.

You can also download the most current information from the Centers for Medicare & Medicaid Services website. To replace or edit a delivered mapping, you must deselect the `Active` field and create another record.

1. From the Health Cloud - Admin Home page, select the Condition to HCC Code Mapping tab, and click **New**.

2. Enter the following:

Field	Description
Mapping ID	Identifier for a specific mapping relationship.
Condition Code	The ICD code for a specific condition.
HCC Code	The CMS HCC code.
Year + Condition + HCC Code	Unique key for the record that links the `Valid From` field, the ICD condition code, and the HCC code.
Valid From	Number field that holds the year in which the HCC code became valid. For example, *2016*.
Valid Through	The last year in which the HCC code was valid. For example, if a code was replaced in 2016, that's the year that appears in the field. Codes that are being used and that are still valid don't have a value in this field.

Field	Description
Active	Indicates whether this condition to HCC mapping is active and available for use.

3. Click **Save**.

Manage Programs

Use the Programs tab to manage the relevant data about the programs a patient participates in that are tracked or monitored in Health Cloud.

The Programs tab contains information such as start and end dates, reimbursement rates, target interaction times, and the role of the professional who is interacting with the patient.

> **Note:** If you don't see the User Role, Rate, Target, Unit of Measure, and Time Span fields, then you must add them to the

1. From the Health Cloud - Admin Home page, select the Programs tab, and click **New**.

2. Select a record type for the new program and click **Continue**.

3. Enter the following:

Field	Description
Program Name	Name of the program.
User Role	Types of providers who qualify for reimbursement during a time period, if applicable.
Rate	Reimbursement rate for the measurement period of a patient's program.
Target	Target time to spend with the patient for the measurement period.
Start Date	Date when the program begins.
End Date	Date when the program ends.
Is Active	Select to activate the program.
Unit of Measure	Unit of measurement for the time spent with the patient during the measurement period defined in the Target field. Valid values are `Minutes` and `Seconds`.
Time Span	Measurement period for the program. Valid values are `Annually`, `Monthly`, `Quarterly`, and `Weekly`.
Report Name	Name of the Wave dashboard that uses this information. For example, CCM Dashboard.

4. Save your work.

Manage Program-Patient Affiliations

Manage the associations between patients and the programs they're enrolled in. This record can also link a patient with the providers who care for them within their enrolled programs. You can implement a custom integration or use Data Loader to import historical medical records from the EHR system and map it to the fields that appear in this tab.

At a minimum, you must populate the Program ID, Account ID, and Is Active field for each record.

1. From the Health Cloud - Admin Home page, select the Program Patient Affiliation tab, and click **New**.

2. Enter the following:

Field	Description
Patient	Lookup field to Account.
Program	Program in which the patient is enrolled.
Provider	Name of the physician or other health care provider.
Status	Status of the patient's Medicare Chronic Care Management (CCM) program.
Start Date	Date when the patient's enrollment in the program starts.
End Date	Date when the patient's enrollment in the program ends.
Is Active	Indicates whether the enrollment of the person in the associated program is active.
Recalculate?	Indicates whether new and relevant information about the patient has been received that triggers a recalculation of the appropriate program metrics. Changes to the following fields trigger a recalculation of a patient's risk score. - Account: Disability, Enrollment Type, Institution, Medicaid, and OREC. - Contact: Birthdate, and Gender. - EHR Condition: Date Asserted, Encounter, and Source System Modified. Adding or deleting an EHR Condition record also triggers a recalculation. - EHR Encounter: Hospitalize Period End, Hospitalize Period Start, Period End, and Period Start.

3. Click **Save**.

View Program Patient Summary Information

View the patient risk score and other summary information about the patient and affiliated programs that's displayed in Wave dashboards. The patient's risk score, along with demographic information such age, gender, disability status, conditions, Medicaid eligibility, HCC codes, and other information is displayed here.

Each time the scoring algorithm job runs and there has been a change in underlying records, the system generates a new Program Patient Summary record. You can identify the most current information by viewing the record that has the `Most Recent` checkbox selected. There is only one active record per patient for a given year. Historical data is stored in the table and isn't overwritten.

> 📝 **Note:** If you edit the calculated data, it can affect the accuracy of your results.

1. From the Health Cloud - Admin Home page, select the Program Patient Summary tab, and click **New**.
2. Enter the following:

Field	Description
Name	System-generated identifier.
Gender	Patient's gender.
Age	Patient's age in years as of December 31 for the year being calculated.
Disability Status	Indicates whether the patient is flagged as disabled in the Patient record.
Institution	Indicates whether the patient is in an institution. A blank field indicates that the patient resides in a community.
New Patient	Indicates whether the person is a new Medicare patient or a continued enrollee.
Low Income	Indicates whether the patient falls within low-income guidelines.
Risk Score	Patient's calculated HCC risk score. 📝 **Note:** If a patient has a risk score of 0, check to see that the enrollment type is set correctly for that patient.
Year	Year that the risk score applies to.
HCC Codes	HCC codes that apply to the patient for the year.
Age Band	Patient's age group in years as of December 31 for the year being calculated.
Effective Date	Date when the risk score was calculated.
Most Recent	Identifies that this summary information is the most current for the patient for that year.
Number of Conditions	Number of medical conditions associated with the patient.
Patient Program Affiliation	Lookup field to the Program Patient Affiliation object.
Conditions	List of Hierarchical Condition Category (HCC) codes associated with the patient.

3. Click **Save**.

Manage Provider Information

Manage the current healthcare provider names based on information from the EHR Practitioner object, or related contact and user records.

1. From the Health Cloud - Admin Home page, select the Providers tab, and click **New**.

2. Enter the following:

Field	Description
Provider Name	Name of the physician or other healthcare provider.
EHR Practitioner	Name of the provider as it exists in the EHR Practitioner object.
Related Contact	Contact record for the provider.
Related User	User record for the provider, followed by user's name.
Active	Indicates whether this provider is actively practicing.

3. Click **Save**.

Recalculate Patient Risk Scores

You can recalculate patient Centers for Medicare and Medicaid Services (CMS) risk scores in Health Cloud with a batch Apex job using the `HcCMSRiskScoringScheduledJob` class. You can either run the job manually as needed or schedule it.

Risk scores are recalculated for patient records that are affiliated with a care program and have the Recalculate flag set to `true`. The flag resets to `true` whenever a patient's information changes.

IN THIS SECTION:

Recalculate Patient Risk Scores as Needed
Recalculate Medicare and Medicaid patient risk scores in Health Cloud as needed with a batch Apex job.

Recalculate Patient Risk Scores at a Scheduled Time
Recalculate Medicare and Medicaid patient risk scores in Health Cloud at a specific time with a batch Apex job.

Recalculate Patient Risk Scores as Needed

Recalculate Medicare and Medicaid patient risk scores in Health Cloud as needed with a batch Apex job.

Invoke the `HcCMSRiskScoringScheduledJob` class in your Apex job.

1. Open the Developer Console.

2. Select **Debug | Open Execute Anonymous Window**.

3. In the Enter Apex Code window, enter this text.
   ```
   HealthcloudGA.HcCMSRiskScoringScheduledJob s = new
   HealthcloudGA.HcCMSRiskScoringScheduledJob (year);
   s.execute(null);
   ```
   - Enter the year as a four-digit number, for example, 2017.
   - The batch size is optional. If you don't specify a batch size, the job processes up to 200 records.

4. Click **Execute**.

Recalculate Patient Risk Scores at a Scheduled Time

Recalculate Medicare and Medicaid patient risk scores in Health Cloud at a specific time with a batch Apex job.

Use the `HcCMSRiskScoringScheduledJob` class and the `Schedule.system` method to schedule the job and a CronTrigger expression to initiate the schedule.

👁 Example: To run the `HcCMSRiskScoringScheduledJob` class each day at midnight, select **Debug | Open Execute Anonymous Window**. Enter the following text in the Enter Apex Code window in Developer Console.

```
HealthcloudGA.HcCMSRiskScoringScheduledJob  riskJob =
        new HealthcloudGA.HcCMSRiskScoringScheduledJob (2017);
String sch = '0 00 00 * * ?';
String jobName = 'Risk Scoring Job';
System.schedule('Risk Scoring Job', sch , riskJob);
```

MIGRATE MORE DATA WITH THE PATIENT CREATION JOB FLOW

When patients are first imported into Health Cloud, the information required to identify and represent those patients is created. Historical medical information associated with patients is not imported into Health Cloud by default; however, you can choose to map more historical information, as needed. You can implement a custom integration to import historical medical records from the EHR system and append it to the default patient creation job flow.
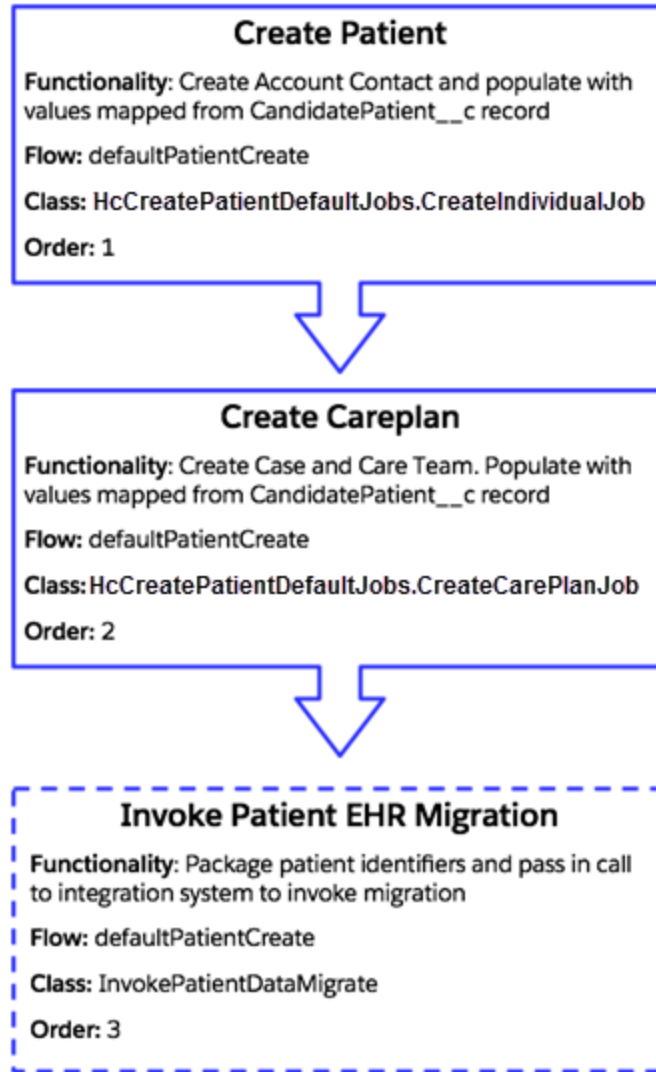
Patient Creation Job Flow in Health Cloud

Each patient is initially represented in Health Cloud as a candidate for services that are managed in Health Cloud. As a result, each patient starts with a CandidatePatient__c record. When the candidate patient is converted, the patient creation process creates corresponding objects in Salesforce:

- An account and contact representing a patient
- A case representing a care plan
- A care team (case team) linked to the care plan coordinator user and the patient contact

The data copied to the Salesforce objects is based on mapping of fields between CandidatePatient__c and the appropriate Salesforce objects.

The candidate patient record (CandidatePatient__c) is a cross-reference between the representation of a patient in the EHR system and in Health Cloud. The records are linked through the medical record number, which is represented in Salesforce by the `Medical Record Number` field. Salesforce uses the `MedicalRecordNumber__c` and `SourceSystem__c` fields to check for duplicate patient records during the patient creation process. You can create a validation rule to verify that all candidate patient records have values in these fields before converting patient records.

The following diagram shows the patient creation job flow. This flow consists of two jobs that perform the steps that occur when a candidate patient record is converted. The third job (Invoke Patient EHR Migration) is a custom integration that you can implement to migrate more data for that patient into Health Cloud.

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Extend or Override the Default Patient Creation Job Flow

Because Health Cloud populates objects with minimal information when a patient is converted, you can add a custom integration to import more medical records. To migrate more data, append your custom integration as the last job in the patient creation job flow. You can also deactivate either of the delivered jobs and add your own customized job instead. Or, you can override the entire delivered job flow and instead use a custom job flow that you create.

Your custom integration consists of an Apex class that extends a base class and implements an interface from the Health Cloud package. The previous job passes your job relevant patient record information through a context parameter. By providing your own implementation for this custom job, you can choose which patient records you want to migrate to Health Cloud. The following list shows examples of useful data migrations after a candidate patient has been converted in Health Cloud.

- Import medical records for a patient from the EHR system, such as:
    - The full patient record
    - Encounters
    - Conditions

- – Observations

- – Diagnosis

- – Treatments

- Flag EHR patient data to be published to Health Cloud if it is changed or created.

- Establish cross-references of patient records between Health Cloud and the EHR system. This cross-reference linkage enables posting data back to the EHR system through another integration. For example, when one of the following records is created in Health Cloud, it can be updated in the EHR system later.

  - – Encounters: phone calls to the patient, emails, or Chatter messages

  - – Observations: Performed remotely by patient or caregivers, or performed by devices

  > **Note:** EHR systems can update only the records they create. If records were created in an external system and were migrated, they are viewable, but not editable in the current system.

Create a Custom Apex Class for the Patient Creation Job Flow

Create a custom Apex class that extends a base class and implements an interface from the Health Cloud package. The custom class overrides the methods in the base class and the interface.

Your Apex class extends the `HealthCloudGA.MoiJobFlowFactory.MoiJobBase` base class and implements the `HealthCloudGA.MoiJobFlowFactory.MoiIJob` interface from the Health Cloud package. Your class signature looks as follows:

```
public with sharing class InvokePatientDataMigrate
    extends HealthCloudGA.MoiJobFlowFactory.MoiJobBase
    implements HealthCloudGA.MoiJobFlowFactory.MoiIJob { }
```

Your class overrides the following methods, which are in the base class.

boolean processJob(HealthCloudGA.MoiJobFlowFactory.MoiIJobContext flowCtxts)

Override this method to implement the logic of your data migration job that is part of the patient creation flow. In this method, you call another method to make a callout to the external EHR system to get more medical records for the patient.

The patient creation job flow runs all the jobs as a single Apex transaction. Partial data changes aren't saved if an error occurs because all changes are rolled back in that transaction. Any callouts must be invoked from a future method so that the data from the first two jobs is saved even if the callout fails. Future methods are executed asynchronously, in the background. For example, this method signature represents the callout utility method in our sample.

```
@Future(callout=true)
private static void invokeIntegration(String jsonPatientIds)
```

The type of the parameter passed to the `processJob()` method is the `HealthCloudGA.MoiJobFlowFactory.MoiIJobContext` class, installed from the Health Cloud package. The patient creation job flow uses this context object to pass information about the created objects to the next job. The jobs for creating a patient populate this context object with the account and contact. Next, the job for creating the care plan accesses the objects in the context to link the case (care plan record type) to CaseTeam members. You can use the objects in the context parameter to find out which objects have been created in Health Cloud and link them to the EHR system. The objects you can access from the `flowCtxts` parameter are:

- Account

- Contact

- CandidatePatient__c

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- Case (CarePlan record type)

You can obtain these objects by calling `getContextData()` on the `flowCtxts` parameter. The `getContextData()` method returns a list of maps. Each map corresponds to the context of one patient and contains the objects related to that patient. The map is keyed by the name of the object. For example, this snippet shows how to get the CandidatePatient__c object from a returned map object:

```
for (Map<String, Object> flowCtxt : flowCtxts.getContextData()) {
    HealthCloudGA__CandidatePatient__c candidatePatient =
        (HealthCloudGA__CandidatePatient__c)flowCtxt.get('CandidatePatient__c'); }
```

HealthCloudGA.MoiJobFlowFactory.MoiIErrorHandler getErrorHandler()

Override this method to add error handling logic when an exception is thrown from `processJob()`. This method returns an instance of a class that performs error handling. The class performing the error handling must implement the `HealthCloudGA.MoiJobFlowFactory.MoiIErrorHandler` interface and override its method:

```
public void handleError(HealthCloudGA.MoiJobFlowFactory.MoiIJobContext context, Exception
 e)
```

We've provided a sample Apex class that you can copy and modify to suit your needs. The implementation of the callout in the `invokeIntegration` helper method is not provided and is left for you to provide. Details of how to communicate with the service endpoint and fetch data differs based on what you want to accomplish. For information about how to make callouts from Apex, see Invoking Callouts Using Apex in the *Force.com Apex Code Developer's Guide*.

You can create an Apex class by using various tools. This walkthrough uses the Developer Console.

1. From Setup, click *Your Name* and then click **Developer Console** to open the Developer Console.

2. Click **File** > **New** > **Apex Class**.

3. Enter *InvokePatientDataMigrate* for the class name, and then press **OK**.

4. Delete the auto-generated content and paste the following sample.

```
public with sharing class InvokePatientDataMigrate extends
HealthCloudGA.MoiJobFlowFactory.MoiJobBase
        implements HealthCloudGA.MoiJobFlowFactory.MoiIJob {

    private static final String CTXTVAR_ACCOUNT = 'Account';
    private static final String CTXTVAR_CONTACT = 'Contact';
    private static final String CTXTVAR_CAREPLAN = 'CarePlan';
    private static final String CTXTVAR_CANDIDIATEPATIENT = 'CandidatePatient__c';

    public with sharing class IntegrationErrorHandler implements
            HealthCloudGA.MoiJobFlowFactory.MoiIErrorHandler {
        public void handleError(HealthCloudGA.MoiJobFlowFactory.MoiIJobContext context,

                            Exception e) {
            // Code can be placed here to address the failure
            System.debug('Exception: '+e+' thrown on Job with context '+context);
            //No Exception
        }
    }

    public override HealthCloudGA.MoiJobFlowFactory.MoiIErrorHandler getErrorHandler()
 {
        return (HealthCloudGA.MoiJobFlowFactory.MoiIErrorHandler)
```

```apex
                new IntegrationErrorHandler();
    }

    // Invokes asynchronous migration of patient data for list of patient identifiers
    @Future(callout=true)
    private static void invokeIntegration(String jsonPatientIds){

        String SalesforceOrgId = System.UserInfo.getOrganizationId();

        //////////////////////////////////////////////////////////////////////
        // Make call to integration system passing patient Identifiers
        // and organization Id.
        // Integration System should respond asynchronously by push Patient
        // EHR records to the org.
        //////////////////////////////////////////////////////////////////////
    }


    private class PatientId{
        public PatientId(String MedicalRecordNumber, Id accountId, Id contactId,
                            Id carePlanId){
            this.SFDCMedicalRecordNumber = MedicalRecordNumber;
            this.SFDCAccountId = accountId;
            this.SFDCContactId = contactId;
            this.carePlanId = carePlanId;

        }
        // Id of account created in CreateIndividual Job
        public Id SFDCAccountId;
        // Id of contact created in CreateIndividual Job
        public Id SFDCContactId;
        // Id of Careplan created in CreateCarePlan job
        public Id carePlanId;
        // Medical Record Number of patient in external Electronic
        // Health Record System
        public String SFDCMedicalRecordNumber;

    }


    // Override processJob method to be called when this job is invoked
    // by MoiJobFlowManager.
    public override boolean processJob(HealthCloudGA.MoiJobFlowFactory.MoiIJobContext
                                    flowCtxts) {

        System.debug('Entered InvokeIntegration.processJob');
        // Compile List of strings with Patient Ids
        // {CandidatePatient__c.MedicalRecordNumber_c, Account.Id and Contact.Id}
        // to pass to integration system to invoke asynchronous publish
        // of patient EHR records.
        List<PatientId> patientIds = new List<PatientId>();

        for (Map<String, Object> flowCtxt : flowCtxts.getContextData()) {
            HealthCloudGA__CandidatePatient__c candidatePatient =
                (HealthCloudGA__CandidatePatient__c)flowCtxt.get(
```

```
                    CTXTVAR_CANDIDIATEPATIENT);
            if (candidatePatient == null ||
                candidatePatient.HealthCloudGA__MedicalRecordNumber__c == '')
                throw new IntegrationException(
                    'Failure: No CandidatePatient record set. ' + candidatePatient);

            patientIds.add(
                new PatientId(candidatePatient.HealthCloudGA__MedicalRecordNumber__c,
                            ((Account)flowCtxt.get(CTXTVAR_ACCOUNT)).Id,
                            ((Contact)flowCtxt.get(CTXTVAR_CONTACT)).Id,
                            ((Case)flowCtxt.get(CTXTVAR_CAREPLAN)).Id)
                        );
        }/* for Flow Ctxts (on for each patient in creation flow */

        System.debug('Calling future method InvokeIntegration('+patientIds+')');
        invokeIntegration(JSON.serializePretty(patientIds));
        return true;
    } // processJob()

    class IntegrationException extends Exception{}
} //class InvokePatientDataMigrate
```

5. Click **File** > **Save**.

Register a Remote Site — Before the callout in this integration can be made, the service endpoint must be registered as a remote site in Salesforce. To register the remote site:

1. From Setup, enter *Remote Site Settings* in the `Quick Find` box, then select **Remote Site Settings**.

2. Click **New Remote Site**.

3. Enter a descriptive term for the `Remote Site Name`. For example, *ClinicalIntegrationEndPoint*.

4. Enter the URL for the remote site.

5. Optionally, enter a description of the site.

6. Click **Save**.

Customize the Patient Conversion Process

Patient creation includes two processes: a job flow that creates the patients and then a mapping group that maps data from the Candidate Patient object to other patient objects.

The settings that control these processes are available for customization so that you can control how patient creation and data mapping occur in your org. From Setup, enter *Custom metadata* in the `Quick Find` box, then select **Custom Metadata Types**.

- Health Cloud Setting (1) contains the configuration values for processes like the job flow that creates patients.
- Job Flow Data Mapping (2) holds the rules that determine which fields from the Candidate Patient object get mapped to patient objects like Account, Contact, and Case.
- Job Flow Setting (3) contains the actual job flows that execute in the patient creation process.

You can customize the delivered patient creation job flow by creating your own custom Apex class and adding your own job, changing the order in which the jobs run, or overriding the job entirely and using your own job flow. You can also change which fields are mapped during patient creation.

Health Cloud Settings

Health Cloud Settings contains a variety of key/value pairs of configuration settings for the Health Cloud application. This includes the two default settings that control which flow to use when creating patients. `PatientCreateFlow_default` controls which job flow to use when creating patients and `PatientCreateMappingGroup__default` controls which group of mappings is used. You can deactivate either of these records and create your own patient creation flow or mapping group.

When creating your own job flows, you must rename the `Setting Name` and `Setting Value` fields. For readability, it's helpful to make the object name and label of Health Cloud Setting record be a combination of the setting name and something about the new value. For example, you can rename `PatientCreateFlow_default` to `PatientCreateFlow_mynewflow`.

To learn more about overriding one of the Health Cloud job settings, see Use Custom Metadata Settings to Configure Health Cloud.

Patient Creation and Data Mapping Job Flows

You can also add new steps to the patient creation job flow or add new mappings to the data mapping process. To deactivate a step in the job flow, deselect the `Active` field for the record.

Override the Health Cloud Job Flows

You can override either of the delivered jobs in the default patient creation job flow and use your own custom job to create patients or to map patient data from the source record system.

You can deactivate the delivered jobs and use your own custom job when you create and activate a new record with the same job flow name. Since you're not deleting the delivered setting, you can reactivate it and use it in the future.

1. From Setup, enter `Custom Metadata` in the `Quick Find` box, then select **Custom Metadata Types**.

2. Click **Health Cloud Setting**, then click **Manage Health Cloud Settings**.

3. Click name of the setting you want to change and click **Edit**.

   - To override the delivered patient creation job, click **PatientCreateFlow_default**.
   - To override the delivered patient data mapping job, click **PatientCreateMappingGroup_default**

4. Clear the `Active` checkbox and then click **Save**.

5. Navigate back to the Health Cloud Settings page, and click **New**, and fill out the information for your custom job and Apex class.

   Make sure to use the same `Setting Name` as the default job flow that you are overriding. For example, *PatientCreateFlow*, if you are overriding the default patient creation job flow with your own entirely new job flow.

6. Select the `Active` checkbox to make the setting available.

Add Your Job to the Patient Creation Job Flow

Whether you have chosen to add a job to the existing patient creation job flow, or have defined an entirely new patient creation job flow, you must create a JobFlowSetting custom metadata record for every job that you want executed.

JobFlowSetting Custom Metadata

Job flows for Health Cloud consist of one or more jobs, each represented by a JobFlowSetting__mdt custom metadata record. Each record points to an Apex class that implements that job.

The settings for each job are defined as one row. You can insert custom metadata records the same way you'd create an instance of another sObject. You can also override any of the jobs within the Patient Create job flow by deselecting the `Active` field on the job. The jobs that make up the default patient creation job flow are represented by these custom metadata records.

Table 1: Default Patient Create Job Flow

Label	Job Flow Name	Job Name	Job Order	Active	Custom
Patient Create	defaultPatientCreate	HcCreatePatientDefaultJobs.CreateIndividualJob	1	true	false
Care Plan Create	defaultPatientCreate	HcCreatePatientDefaultJobs.CreateCarePlanJob	2	true	false

The default Patient Create flow defines the steps for creating a patient record. The jobs in this flow create one Account record and one Contact record, and a Case record for the patient's care plan. This flow uses the JobFlowDataMapping__mdt custom metadata object to define the field mapping from the source CandidatePatient__c to the Account, Contact, and Case records.

The following are descriptions of the fields in the JobFlowSetting__mdt custom metadata type.

Master Label
The friendly name for the job flow entry.

Object Name
The API name of the job flow entry.

Job Flow Name
The name of the job flow. All jobs in the same flow share the job flow name.

Job Name
The name of the Apex class that implements the job. This class extends the `HealthCloudGA.MoiJobFlowFactory.MoiJobBase` class and overrides its `processJob()` method.

Job Order

An integer number that specifies the order of the job in the job flow. Jobs in a job flow must have unique job order numbers, and their order must be linear.

Active

Indicates whether the job is used (true) or not (false).

Custom

False if provided by default in the Health Cloud package; otherwise true.

Protected Component

Specifies whether this Job Flow Setting component is hidden outside a managed package. This field is unchecked (false) in the Health Cloud package as the component is accessible outside the package.

To register your custom integration job, insert a record to the JobFlowSetting__mdt custom metadata. To do so in the user interface:

1. From Setup, enter `Custom Metadata Types` in the `Quick Find` box, then select **Custom Metadata Types**.

2. Click **Job Flow Setting**, then click **Manage Job Flows Settings**.

3. Click **New**, and fill out the information for your custom job and Apex class, including the job flow name, job name, and order in which it runs.

4. Ensure that the **Active** and **Custom** checkboxes are checked.

5. Click **Save**.

For example, to register the sample class that's provided, enter the following information.

1. For Master Label, enter `Create Patient: Invoke Integration`.

2. For Object Name, enter `CreatePatientInvokeIntegration`.

3. For Job Flow Name, enter `defaultPatientCreate` to append your job to the existing job flow.

4. For Job Name, enter the class name `InvokePatientDataMigrate`.

5. For Job Order, enter `3` to ensure that Health Cloud invokes this job after the second default job for patient creation.

6. Ensure that the **Active** and **Custom** checkboxes are checked.

7. Click **Save**.

Data Mapping to Health Cloud Objects

When a patient is converted, Health Cloud copies patient data from CandidatePatient__c to the corresponding Account, Contact, and Case (CarePlan record type) objects. A mapping defines how patient data maps to the fields in the destination Salesforce objects. This mapping is specified in the JobFlowDataMapping__mdt custom metadata object.

These mappings can't be changed or deleted. To change the mappings in your org, create another mapping group and specify in the Health Cloud Settings to use that mapping group instead of the default mappings.

> **Note:** Salesforce uses the `MedicalRecordNumber__c` and `SourceSystem__c` fields to check for duplicate patient records during the patient creation process. You can create a validation rule to verify that all candidate patient records have values in these fields before converting patient records.

Table 2: JobFlowDataMapping__mdt

MappingGroupName	SourceObject	SourceField	TargetObject	TargetField
defaultPatientCreate	CandidatePatient__c	Name__c	Account	Name

MappingGroupName	SourceObject	SourceField	TargetObject	TargetField
defaultPatientCreate	CandidatePatient__c	MedicalRecordNumber__c	Account	MedicalRecordNumber__c
defaultPatientCreate	null	Health Cloud Care Plan[1]	Care Plan[2]	Subject
defaultPatientCreate	CandidatePatient__c	MedicalRecordNumber__c	Contact	MedicalRecordNumber__c
defaultPatientCreate	CandidatePatient__c	Address1Line1__c	Contact	MailingStreet
defaultPatientCreate	CandidatePatient__c	GivenName1__c	Contact	FirstName
defaultPatientCreate	CandidatePatient__c	FamilyName1__c	Contact	LastName
defaultPatientCreate	CandidatePatient__c	BirthDate__c	Contact	Birthdate
defaultPatientCreate	CandidatePatient__c	Address1City__c	Contact	MailingCity
defaultPatientCreate	CandidatePatient__c	Address1Country__c	Contact	MailingCountry
defaultPatientCreate	CandidatePatient__c	Telecom1Value__c	Contact	Phone
defaultPatientCreate	CandidatePatient__c	Address1PostalCode__c	Contact	MailingPostalCode

[1] Because the source object for this record is null, `Health Cloud Care Plan` is a string literal and not a field name. This string value is applied to the target field, Subject.

[2] `Care Plan` is a string literal that corresponds to the object that represents a care plan, namely a Case whose record type is CarePlan.

The following is a description of the fields in the JobFlowDataMapping__mdt custom metadata type that's used for mapping.

Mapping Group Name
The name of a mapping group, which represents a set of field mappings. The patient creation job flow uses only one mapping group named defaultPatientCreate.

Source Object
The API name of the sObject from which data is copied to the target object.

Source Field
The API name of the field that is copied to the target object.

Target Object
The API name of the sObject to copy the data to.

Target Field
The API name of the field to copy the data to.

Active
Indicates whether the job is used (true) or not (false).

Mapping Extra Fields

You can add new field mappings by inserting a record in the JobFlowDataMapping__mdt custom metadata object for each new mapping. Custom mappings can be changed and removed.

To add a mapping in the user interface:

1. From Setup, enter `Custom Metadata Types` in the `Quick Find` box, then select **Custom Metadata Types**.

2. Click **Job Flow Data Mapping**, then click **Manage Job Flow Data Mappings**.

3. Click **New**, and fill out the information for the new mapping.

4. Click **Save**.

> Note: You can also deactivate the delivered JobFlowDataMapping__mdt and use your own custom set of mappings when you create and activate a new record with the same setting name and setting value.