Developer Documentation

Learn how to describe what providers and drugs are covered by a particular health plan.

JSON

All information must be described in the JSON file format. JSON is a lightweight and simple way to represent machine-readable data. It is quickly becoming the de facto standard for shuttling data across the internet, fueled primarily by the rise of mobile and APIs. Modern programming languages can interpret and produce JSON out of the box.

[Learn about JSON >](#)

Public Discoverability

Organizations must post their `index.json`, `plans.json`, `providers.json`, and `drugs.json` files on a website, accessible to the public.

The JSON URLs listed above *must* be provided over HTTPS to ensure the integrity of the data.

Data types

All values in the JSON are strings, unless otherwise noted in the `Definition` field.

Dates should be strings, in ISO 8601 format (e.g. YYYY-MM-DD).

Health Plans - plans.json

Description

`plans.json` contains a list of health plans and their corresponding network of providers and formularies.

Appendix A

Schema			
Field	**Label**	**Definition**	**Required**
plan_id_type	ID Type	Type of Plan ID. For all Marketplace plans this should be: `HIOS-PLAN-ID`	Yes
plan_id	Unique Identifier	The 14-character, HIOS-generated Plan ID number. (Plan IDs must be unique, even across different markets.)	Yes
marketing_name	Marketing Name	The name of the plan as it is displayed on HealthCare.gov	Yes
summary_url	URL for Plan Information	The URL that goes directly to the summary of benefits and coverage for the specific standard plan or plan variation.	Yes
marketing_url	URL for Plan Information	The URL that goes directly to the plan brochure for the specific standard plan or plan variation.	No

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formulary_url	URL for Formulary	The URL that goes directly to the formulary brochure for the specific standard plan or plan variation.	No
plan_contact	Contact Email Address for Plan	An email address for developers/public to report mistakes in the network and formulary data.	Yes
network	Network	Array of networks	Yes
formulary	Formulary	A list of formularies or a single formulary associated with this plan. Both a list of formularies or a single formulary are valid.	Yes
benefits	Benefits	Array of benefits	No
last_updated_on	Last Updated On	ISO 8601 format (e.g. YYYY-MM-DD)	Yes

years	Years	An array of years for which the plan is offered on the marketplace (eg., 2016, 2017).	Yes

Network sub-type

This type defines a network within a plan. The values should be something that is meaningful to an issuer, there is no taxonomy of network tier names. This value will be used later in the `providers.json` file to connect a provider to a specific plan and network tier within that plan.

Field	Label	Definition	Required
network_tier	Network Tier	Tier name for network (Example Values: `PREFERRED, NON-PREFERRED,` etc. Values should be all uppercase.)	Yes

Formulary sub-type

This type defines a formulary within a plan. The values should be something that is meaningful to an issuer, there is no taxonomy of formulary tier names. This value will be used later in the `drugs.json` file to connect a drug to a specific plan and formulary tier within that plan.

Field	Label	Definition	Required
drug_tier	Drug Tier	Tier for formulary - (Example Values: `GENERIC, PREFERRED-GENERIC, NON-PREFERRED-GENERIC, SPECIALTY, BRAND, PREFERRED-BRAND, NON-PREFERRED-BRAND, ZERO-COST-SHARE-PREVENTIVE, MEDICAL-SERVICE,` etc. Values should be all uppercase.)	Yes

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mail_order	Mail Order	Does the formulary cover mail order? - (Values: `true` or `false`)	Yes
cost_sharing	Cost Sharing	Array of cost sharing values (see "Cost sharing sub-type" below)	No

Cost sharing sub-type

Field	Label	Definition	Required
pharmacy_type	Pharmacy Type	Pharmacy type (Example Values: `1-MONTH-IN-RETAIL`, `1-MONTH-OUT-RETAIL`, `1-MONTH-IN-MAIL`, `1-MONTH-OUT-MAIL`, `3-MONTH-IN-RETAIL`, `3-MONTH-OUT-RETAIL`, `3-MONTH-IN-MAIL`, `3-MONTH-OUT-MAIL`)	Yes
copay_amount	Copay amount	Amount of copay, in $ (number)	Yes
copay_opt	Copay option	Qualifier of copay amount (Values: `AFTER-DEDUCTIBLE`, `BEFORE-DEDUCTIBLE`, `NO-CHARGE`, `NO-CHARGE-AFTER-DEDUCTIBLE`	Yes
coinsurance_rate	Coinsurance rate	Rate of coinsurance (float, 0.0 to 1.0)	Yes
coinsurance_opt	Coinsurance option	Qualifier for coinsurance rate (Values: `AFTER-DEDUCTIBLE`, `BEFORE-DEDUCTIBLE`, `NO-CHARGE`, `NO-CHARGE-AFTER-DEDUCTIBLE`)	Yes

Benefits sub-type

The **Benefits** sub-type is an optional section and will be shaped depending on what industry and consumers find valuable.

For example, many health plans are offering telemedicine as an additional health benefit and that can be highlighted by adding a `telemedicine` entry.

Field	Label	Definition	Required
telemedicine	Offers Telemedicine	Does the plan cover telemedicine? Boolean (values should be either `true` or `false`)	No

Example plans.json

```
[
    {
        "plan_id_type": "HIOS-PLAN-ID",
        "plan_id": "12345XX9876543",
        "years": [2016, 2017],
        "marketing_name": "Sample Gold Health Plan",
        "summary_url": "http://url/to/summary/benefits/coverage",
        "marketing_url": "http://url/to/health/plan/information",
        "formulary_url": "http://url/to/formulary/information",
        "plan_contact": "email@address.com",
        "network": [
            {
                "network_tier": "PREFERRED"
            },
            {
                "network_tier": "NON-PREFERRED"
            }
        ],
        "formulary": [
          {
            "drug_tier": "BASIC",
            "mail_order": true,
            "cost_sharing": [
              {
                "pharmacy_type": "1-MONTH-IN-RETAIL",
                "copay_amount": 20.0,
                "copay_opt": "AFTER-DEDUCTIBLE",
                "coinsurance_rate": 0.10,
                "coinsurance_opt": "BEFORE-DEDUCTIBLE"
              },
              {
                "pharmacy_type": "1-MONTH-IN-MAIL",
                "copay_amount": 0.0,
                "copay_opt": "NO-CHARGE",
                "coinsurance_rate": 0.20,
```

```
              "coinsurance_opt": null
            }
          ]
        },
        {
          "drug_tier": "PREFERRED",
          "mail_order": true,
          "cost_sharing": [
            {
              "pharmacy_type": "1-MONTH-IN-RETAIL",
              "copay_amount": 20.0,
              "copay_opt": "AFTER-DEDUCTIBLE",
              "coinsurance_rate": 0.10,
              "coinsurance_opt": "BEFORE-DEDUCTIBLE"
            },
            {
              "pharmacy_type": "1-MONTH-IN-MAIL",
              "copay_amount": 0.0,
              "copay_opt": "NO-CHARGE",
              "coinsurance_rate": 0.20,
              "coinsurance_opt": null
            }
          ]
        }
      ],
      "last_updated_on": "2015-03-17"
    }
]
```

Providers - providers.json

Description

`providers.json` contains a list of providers and the plans that cover their services.

If a provider has more than one NPI number, please create separate entries for each NPI number. If there is no NPI number, set the value to null (`{"npi": null}`)

Schema			
Field	**Label**	**Definition**	**Required**
npi	National Provider ID	The 10-digit National Provider Identifier (NPI) is a unique identification number for covered health care providers	Yes

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type	Type	One of: INDIVIDUAL, FACILITY, or GROUP. For reference, INDIVIDUAL maps to NPI type 1, while FACILITY and GROUP correspond with NPI type 2.	Yes
plans	Plans	Array of plans that cover this provider (see "Plans sub-type" below)	Yes
last_updated_on	Last Updated On	Date of when the record for this provider has been last updated or refreshed - ISO 8601 format (e.g. YYYY-MM-DD)	Yes

If the entry has INDIVIDUAL type, then the following fields should be present:

Field	Label	Definition	Required
name	Name	-	Yes
prefix	Prefix	One of Mr., Mrs., Miss, Ms., Dr.	No
first	First Name	Full first name	Yes
middle	Middle Name	Full middle name	No
last	Last Name	Full last name	Yes
suffix	Suffix	One of Jr., Sr., II, III, III, IV	No
addresses	Address	List of addresses for this provider	Yes
address	Street Address	-	Yes
address_2	Street Address 2	-	No
city	City	-	Yes
state	State Abbreviation	Two letter state abbreviation (FL, IA, etc.)	Yes
zip	Zip Code	Five digit zip code, represented as a string	Yes

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phone	Phone Number	Phone number for this address, represented as a string of numbers	Yes
specialty	Specialty Type	An array of specialty types. Free form text field.	Yes
accepting	Accepting Patients	Is the provider accepting new patients? One of three values: `accepting, not accepting, accepting in some locations`	Yes
gender	Gender	Values: `Male, Female, Other`	No
languages	Languages Spoken	An array of the languages spoken	No

If the entry has `FACILITY` type, then the following fields should be present:

Field	Label	Definition	Required
Field	**Label**	**Definition**	**Required**
facility_name	Facility Name	-	Yes
facility_type	Facility Type	An array of facility types. Free-form text field.	Yes
addresses	Address	List of addresses for this facility	Yes
address	Street Address	-	Yes
address_2	Street Address 2	-	No
city	City	-	Yes
state	State Abbreviation	Two letter state abbreviation (FL, IA, etc.)	Yes
zip	Zip Code	Five digit zip code, represented as a string	Yes
phone	Phone Number	Phone number for this address, string	Yes
If the entry has `GROUP` type, then the following fields should be present:			
Field	**Label**	**Definition**	**Required**
group_name	Group Practice Name	-	Yes

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Field	Label	Definition	Required
addresses	Address	List of addresses for this facility	Yes
address	Street Address	-	Yes
address_2	Street Address 2	-	No
city	City	-	Yes
state	State Abbreviation	Two letter state abbreviation (FL, IA, etc.)	Yes
zip	Zip Code	Five digit zip code, represented as a string	Yes
phone	Phone Number	Phone number for this address, string	Yes

If the entry has GROUP type, then the following fields should be present:

Field	Label	Definition	Required
group_name	Group Practice Name	-	Yes
addresses	Address	List of addresses for this facility	Yes
address	Street Address	-	Yes
address_2	Street Address 2	-	No
city	City	-	Yes
state	State Abbreviation	Two letter state abbreviation (FL, IA, etc.)	Yes
zip	Zip Code	Five digit zip code, represented as a string	Yes
phone	Phone Number	Phone number for this address, string	Yes

Plans sub-type

Field	Label	Definition	Required
plan_id_type	ID Type	Type of Plan ID. For all Marketplace plans this should be: `HIOS-PLAN-ID`	Yes
plan_id	Unique Identifier	The plan ID that was used in the plans.json as the `plan_id` value. For a Marketplace plan, this must be the 14-digit HIOS plan id.	Yes
network_tier	Network Tier	Tier for network (Example Values: `PREFERRED`, `NON-PREFERRED`, etc. Values should be all uppercase.) Must match a network tier defined in the corresponding plan record in a `plans.json` file.	Yes
years	Years	An array of years for which the plan is offered on the marketplace (eg., 2016, 2017).	Yes

Example providers.json

```
[
    {
        "npi": "1234567893",
        "type": "INDIVIDUAL",
        "name": {
            "first": "Sarah",
            "middle": "Maya",
            "last": "Ngyuen",
```

```
          "suffix": "Jr."
        },
        "addresses": [
          {
            "address": "123 Main St",
            "address_2": "Suite 120",
            "city": "Little Rock",
            "state": "AR",
            "zip": "72201",
            "phone": "2025551212"
          },
          {
            "address": "675 South St",
            "city": "Little Rock",
            "state": "AR",
            "zip": "72201",
            "phone": "2025551212"
          }
        ],
        "specialty": ["Ophthalmology", "Endocrinology"],
        "accepting": "accepting",
        "plans": [
            {
                "plan_id_type": "HIOS-PLAN-ID",
                "plan_id": "12345XX9876543",
                "network_tier": "PREFERRED",
                "years": [2016]
            },
            {
                "plan_id_type": "HIOS-PLAN-ID",
                "plan_id": "12345XX9876543",
                "network_tier": "NON-PREFERRED",
                "years": [2016, 2017]
            }
        ],
        "languages": ["English", "Spanish", "Mandarin"],
        "gender": "Female",
        "last_updated_on": "2015-03-17"
    },
    {
        "npi": "1234567894",
        "type": "FACILITY",
        "facility_name": "Main Street Hospital",
        "facility_type": ["Hospital", "Dialysis"],
        "addresses": [
          {
            "address": "123 Main St",
            "address_2": "Suite 120",
            "city": "Little Rock",
            "state": "AR",
            "zip": "72201",
            "phone": "2025551212"
          }
        ],
        "plans": [
            {
                "plan_id_type": "HIOS-PLAN-ID",
                "plan_id": "12345XX9876543",
                "network_tier": "PREFERRED",
                "years": [2017]
            },
```

```
    {
        "plan_id_type": "HIOS-PLAN-ID",
        "plan_id": "12345XX9876543",
        "network_tier": "NON-PREFERRED",
        "years": [2016]
    }
  ],
  "last_updated_on": "2016-04-13"
},
{
  "npi": "1234567895",
  "type": "GROUP",
  "group_name": "North Main Physicians Group",
  "addresses": [
    {
      "address": "234 N Main St",
      "address_2": "",
      "city": "Fayetteville",
      "state": "AR",
      "zip": "72701",
      "phone": "2025551313"
    }
  ],
  "plans": [
    {
        "plan_id_type": "HIOS-PLAN-ID",
        "plan_id": "12345XX9876543",
        "network_tier": "PREFERRED",
        "years": [2017]
    },
    {
        "plan_id_type": "HIOS-PLAN-ID",
        "plan_id": "12345XX9876543",
        "network_tier": "NON-PREFERRED",
        "years": [2016]
    }
  ],
  "last_updated_on": "2016-05-31"
}
]
```

Drugs - drugs.json

Description

drugs.json contains a list of drugs and the plans that cover them.

Schema

Field	Label	Definition	Required
rxnorm_id	Drug Identifier	RxCUI (Specific drug identifier from RXNORM)	Yes
drug_name	Drug Name	Name of Drug	Yes
plans	Plans	Array of plans that cover this drug (see "Plans sub-type" below)	Yes

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Plans sub-type

Field	Label	Definition	Required
plan_id_type	ID Type	Type of Plan ID. For all Marketplace plans this should be: `HIOS-PLAN-ID`	Yes
plan_id	Unique Identifier	The plan ID that was used in the plans.json as the `plan_id` value. For a Marketplace plan, this must be the 14-digit HIOS plan id.	Yes
drug_tier	Drug Tier	Tier for formulary (Example Values: `GENERIC`, `PREFERRED-GENERIC`, `NON-PREFERRED-GENERIC`, `SPECIALTY`, `BRAND`, `PREFERRED-BRAND`, `NON-PREFERRED-BRAND`, `ZERO-COST-SHARE-PREVENTIVE`, `MEDICAL-SERVICE`, etc. Values should be all uppercase.)	Yes
prior_authorization	Prior Authorization Required	Is prior authorization required? - (boolean value: `true` or `false`)	No
step_therapy	Step Therapy Required	Is step therapy required? - (boolean value: `true` or `false`)	No
quantity_limit	Quantity Limit	Is there a quantity limit for this drug? - (boolean value: `true` or `false`)	No
years	Years	An array of years for which the plan is offered on the marketplace (eg., 2016, 2017).	Yes

Example drugs.json

```
[
    {
        "rxnorm_id": "209459",
        "drug_name": "Acetaminophen 500 MG Oral Tablet [Tylenol]",
        "plans": [
            {
                "plan_id_type": "HIOS-PLAN-ID",
                "plan_id": "12345XX9876543",
                "drug_tier": "GENERIC",
                "prior_authorization": false,
                "step_therapy": false,
                "quantity_limit": false,
                "years": [2016, 2017]
            },
            {
                "plan_id_type": "HIOS-PLAN-ID",
                "plan_id": "12345XX9876546",
                "drug_tier": "GENERIC",
                "prior_authorization": false,
                "step_therapy": false,
                "quantity_limit": false,
                "years": [2016, 2017]
```

```
                }
            ]
        },
        {
            "rxnorm_id": "248656",
            "drug_name": "Azithromycin 500 MG Oral Tablet [Zithromax]",
            "plans": [
                {
                    "plan_id_type": "HIOS-PLAN-ID",
                    "plan_id": "12345XX9876543",
                    "drug_tier": "GENERIC",
                    "prior_authorization": false,
                    "step_therapy": false,
                    "quantity_limit": true,
                    "years": [2016]
                },
                {
                    "plan_id_type": "HIOS-PLAN-ID",
                    "plan_id": "12345XX9876546",
                    "drug_tier": "GENERIC",
                    "prior_authorization": false,
                    "step_therapy": false,
                    "quantity_limit": false,
                    "years": [2017]
                }
            ]
        }
    ]
```