

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 `plans.json`, `providers.json`, and `drugs.json` files on their websites, accessible to the public.

The path to the URLs will be submitted via HIOS to CMS.

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

Health Plans - `plans.json`

Description

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

Schema

Field	Label	Definition	Required
<code>plan_id_type</code>	ID Type	Type of Plan ID. The preferred is the HIOS	Always

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Field	Label	Definition	Required
		Plan ID - HIOS-PLAN-ID	
plan_id	Unique Identifier	The 14-character, HIOS-generated Plan ID number. (Plan IDs must be unique, even across different markets.)	Always
marketing_name	Marketing Name	The name of the plan as it is displayed on HealthCare.gov	Always
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.	Always
marketing_url	URL for Plan Information	The URL that goes directly to the plan brochure for the specific standard plan or plan variation.	No
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.	Always
network	Network	Array of networks	Always
formulary	Formularies	Array of drug lists	Always

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Field	Label	Definition	Required
benefits	Benefits	Array of benefits	No
last_updated_on	Last Updated On	ISO 8601 format (e.g. YYYY-MM-DD)	Always

Network sub-type

Field	Label	Definition	Required
<i>network_tier</i>	Network Tier	Tier for network (Example Values: PREFERRED, NON-PREFERRED, etc. Values should be all uppercase.)	Always

Formulary sub-type

Field	Label	Definition	Required
<i>drug_tier</i>	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.)	Always
<i>mail_order</i>	Mail Order	Does the formulary cover mail order? - (Values: true or false)	Always
<i>cost_sharing</i>	Cost Sharing	Array of cost sharing values (see "Cost sharing sub-type" below)	Always

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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)	Always
copay_amount	Copay amount	Amount of copay, in \$ (number)	Always
copay_opt	Copay option	Qualifier of copay amount (Values: AFTER-DEDUCTIBLE, BEFORE-DEDUCTIBLE, NO-CHARGE, NO-CHARGE-AFTER-DEDUCTIBLE)	Always
coinsurance_rate	Coinsurance rate	Rate of coinsurance (float, 0.0 to 1.0)	Always
coinsurance_opt	Coinsurance option	Qualifier for coinsurance rate (Values: AFTER-DEDUCTIBLE, NO-CHARGE, NO-CHARGE-AFTER-DEDUCTIBLE)	Always

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
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Field	Label	Definition	Required
telemedicine	Offers Telemedicine	Does the plan cover telemedicine? - (Values: true or false)	No

Example

```
[
  {
    "plan_id_type": "HIOS-PLAN-ID",
    "plan_id": "12345XX9876543",
    "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": "GENERIC",
        "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": "BRAND",
      "mail_order": true,
      "cost_sharing": [
```

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```
[
  {
    "pharmacy_type": "1-MONTH-IN-RETAIL",
    "copay_amount": 15.0,
    "copay_opt": null,
    "coinsurance_rate": 0.0,
    "coinsurance_opt": null
  },
  {
    "pharmacy_type": "1-MONTH-IN-MAIL",
    "copay_amount": 20.0,
    "copay_opt": "AFTER-DEDUCTIBLE",
    "coinsurance_rate": 0.10,
    "coinsurance_opt": "BEFORE-DEDUCTIBLE"
  }
],
"last_updated_on": "2015-03-17"
]
```

Providers - providers.json

Description

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

Schema

Field	Label	Definition	Required
npi	National Provider ID	The National Provider Identifier (NPI) is a unique identification number for covered health care providers	Always
type	Type	Specify if INDIVIDUAL or FACILITY	Always
plans	Plans	Array of plans that cover this provider (see "Plans sub-type" below)	Always
last_updated_on	Last	Date of when the record for this provider has	Always

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Field	Label	Definition	Required
	Updated On	been last updated or refreshed - ISO 8601 format (e.g. YYYY-MM-DD)	

If the entry is for an **INDIVIDUAL** then the following fields should be present:

Field	Label	Definition	Required
name	Name	-	Always
prefix	Prefix	-	No
first	First Name	-	Always
middle	Middle Name	-	No
last	Last Name	-	Always
suffix	Suffix	-	No
address	Address	-	Always
address	Street Address	-	Always
address_2	Street Address 2	-	No
city	City	-	Always

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Field	Label	Definition	Required
<i>state</i>	State Abbreviation	-	Always
<i>zip</i>	Zip Code	-	Always
<i>phone</i>	Phone Number	-	Always
<i>specialty</i>	Specialty Type	An array of speciality types.	Always
<i>accepting</i>	Accepting Patients	Is the provider accepting patients? - (Values: true or false)	Always
<i>gender</i>	Gender	Values: Male, Female, Other	Optional
<i>languages</i>	Languages Spoken	An array of the languages spoken	Optional

If the entry is for a FACILITY then the following fields should be present:

Field	Label	Definition	Required
<i>facility_name</i>	Facility Name	-	Always
<i>facility_type</i>	Facility Type	An array of facility types.	Always
<i>address</i>	Address	-	Always
<i>address</i>	Street Address	-	Always

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Field	Label	Definition	Required
<i>address_2</i>	Street Address 2	-	No
<i>city</i>	City	-	Always
<i>state</i>	State Abbreviation	-	Always
<i>zip</i>	Zip Code	-	Always
<i>phone</i>	Phone Number	-	Always

Plans sub-type

Field	Label	Definition	Required
<i>plan_id_type</i>	ID Type	Type of Plan ID. The preferred is the HIOS Plan ID - HIOS-PLAN-ID	Always
<i>plan_id</i>	Unique Identifier	The 14-character, HIOS-generated Plan ID number. (Plan IDs must be unique, even across different markets.)	Always
<i>network_tier</i>	Network Tier	Tier for network (Example Values: PREFERRED, NON-PREFERRED, etc. Values should be all uppercase.)	Always

Example

```
[
  {
    "npi": "1234567890123456",
    "type": "INDIVIDUAL",
    "name": {
      "first": "Sarah",
```

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```
    "middle": "Maya",
    "last": "Ngyuen",
    "suffix": "Jr."
  },
  "address": {
    "address": "123 Main Street",
    "address_2": "Suite 120",
    "city": "Little Rock",
    "state": "AR",
    "zip": "72201"
  },
  "phone": "2025551212",
  "specialty": ["Ophthalmology"],
  "accepting": true,
  "plans": [
    {
      "plan_id_type": "HIOS-PLAN-ID",
      "plan_id": "12345XX9876543",
      "network_tier": "PREFERRED"
    },
    {
      "plan_id_type": "HIOS-PLAN-ID",
      "plan_id": "12345XX9876543",
      "network_tier": "NON-PREFERRED"
    }
  ],
  "languages": ["English", "Spanish", "Mandarin"],
  "last_updated_on": "2015-03-17"
},
{
  "npi": "1234567890123949",
  "type": "FACILITY",
  "facility_name": "Main Street Hospital",
  "facility_type": ["Hospital"],
  "address": {
    "address": "123 Main Street",
    "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"
    },
    {
      "plan_id_type": "HIOS-PLAN-ID",
      "plan_id": "12345XX9876543",
      "network_tier": "NON-PREFERRED"
    }
  ],
  "last_updated_on": "2015-03-17"
```

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```
}  
]
```

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)	Always
drug_name	Drug Name	Name of Drug	Always
plans	Plans	Array of plans that cover this drug (see "Plans sub-type" below)	Always

Plans sub-type

Field	Label	Definition	Required
<i>plan_id_type</i>	ID Type	Type of Plan ID. The preferred is the HIOS Plan ID - HIOS-PLAN-ID	Always
<i>plan_id</i>	Unique Identifier	The 14-character, HIOS-generated Plan ID number. (Plan IDs must be unique, even across different markets.)	Always

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Field	Label	Definition	Required
<i>drug_tier</i>	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.)	Always
<i>prior_authorization</i>	Prior Authorization Required	Is prior authorization required? - (Values: true or false)	Always
<i>step_therapy</i>	Step Therapy Required	Is step therapy required? - (Values: true or false)	Always
<i>quantity_limit</i>	Quantity Limit	Is there a quantity limit for this drug? - (Values: true or false)	Always

Example

```
[
  {
    "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
      }
    ],
  }
]
```

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```
        "plan_id_type": "HIOS-PLAN-ID",
        "plan_id": "56748XXX123933",
        "drug_tier": "GENERIC",
        "prior_authorization": false,
        "step_therapy": false,
        "quantity_limit": false
    }
]
},
{
    "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
        },
        {
            "plan_id_type": "HIOS-PLAN-ID",
            "plan_id": "56748XXX123933",
            "drug_tier": "GENERIC",
            "prior_authorization": false,
            "step_therapy": false,
            "quantity_limit": false
        }
    ]
}
]
```