CARIN Blue Button Framework and Common Payer Consumer Data Set

EMPOWERING CONSUMERS WITH THEIR HEALTH PLAN DATA

carin
Creating Access to Real-time Information Now through Consumer-Directed Exchange

LEAVITT PARTNERS

Our Template : The Argonaut Project

Background:

The **Argonaut Project** was formed in December 2014 as an implementation community comprising leading technology vendors and provider organizations to accelerate the use of FHIR and OAuth in health care information exchange.

The Argonaut project is private-sector initiated and funded and works collaboratively with other FHIR initiatives to create open industry Implementation Guides in high priority use cases of importance to patients, providers and the industry as a whole.

Deliverables:

Focused on the ONC's 2015 Edition Common Clinical Data Set (CCDS) to co-develop the SMART App Application Guide using the OAuth 2.0 profile for authorizing apps to access FHIR data and the Argonaut Data Query Implementation Guide (FHIR DSTU2).

Timeline:

IG Publication – Mid 2016 (1 ½ years)

Full Implementation – 2016 to 2019 (3 years)

As of October 2018:

82% of all Hospitals using FHIR DSTU2

64% of all Physicians using FHIR DSTU2

Why do we need more 'Argonaut-like' efforts?

- Standards development process, by design, values comprehensiveness over speed-to market
- Market input is needed to make standards relevant and usable
  - Identification of priority use cases to meet market needs
  - Development of well-packaged implementation guides
  - Facilitation of testing and implementation community
  - Coupling with other standards or protocols needed for implementation (e.g., security)
- Implementers need to have greater input (i.e., deeper, earlier) into standards development
- Need to get as much collaboration as early as possible in the cycle to head off problems of heterogeneous implementations down the road
- Consumer platform companies have the ability to scale standards
  - August 2018 – Amazon, Google, IBM, Microsoft, IBM, Oracle, Salesforce pledged to promote open standards in health care

*Largely taken from March 2018 Argonaut Project presentation at HL7

CARIN Blue Button Framework

- Leverage the Argonaut Project as a best practice approach
- Common Payer Consumer Data Set (CPCDS)
  - Includes key health data that should be accessible and available for exchange.
  - Data must conform with specified vocabulary standards and code sets.
  - CPCDS data elements can be stored and queried as profiled FHIR resources.
- Data Query Profiles
  - Based on CPCDS, define the minimum mandatory elements, extensions and terminology requirements that must be present in the FHIR resource.
- Data Query Implementation Guide
  - Collection of security specifications, profile definitions and supporting documentation.
  - The guide satisfies use cases for member access to health plan data, ensuring the CPCDS elements are included and modeled in a standard format.
- Flat File Format Specification Representing CPCDS Data Elements
- Mapping From Flat File Format To FHIR Resource Profiles

Argonaut & CARIN Blue Button Framework

	Argonaut Project	CARIN Blue Button Framework
Logical Data Specification	Common Clinical Data Set (CCDS)	Common Payer Consumer Data Set (CPCDS)
Physical Data Specification Using FHIR (Data Query)	FHIR Resource Profiles Representing CCDS Data Elements	FHIR Resource Profiles Representing CPCDS Data Elements
Physical Data Specification Using Flat File	None	Flat File Format Specification Representing CPCDS Data Elements
Document Query	DocumentReference Profile Exposing Patient's Existing Clinical Document	None
Flat File to FHIR Translation	Not Applicable	Mapping From Flat File Format To FHIR Resource Profiles
Authorization	SMART on FHIR	SMART on FHIR/OAuth2

BB 2.0 API Using CARIN Blue Button Framework

Creating Access to Real-time Information Now through Consumer-Directed Exchange

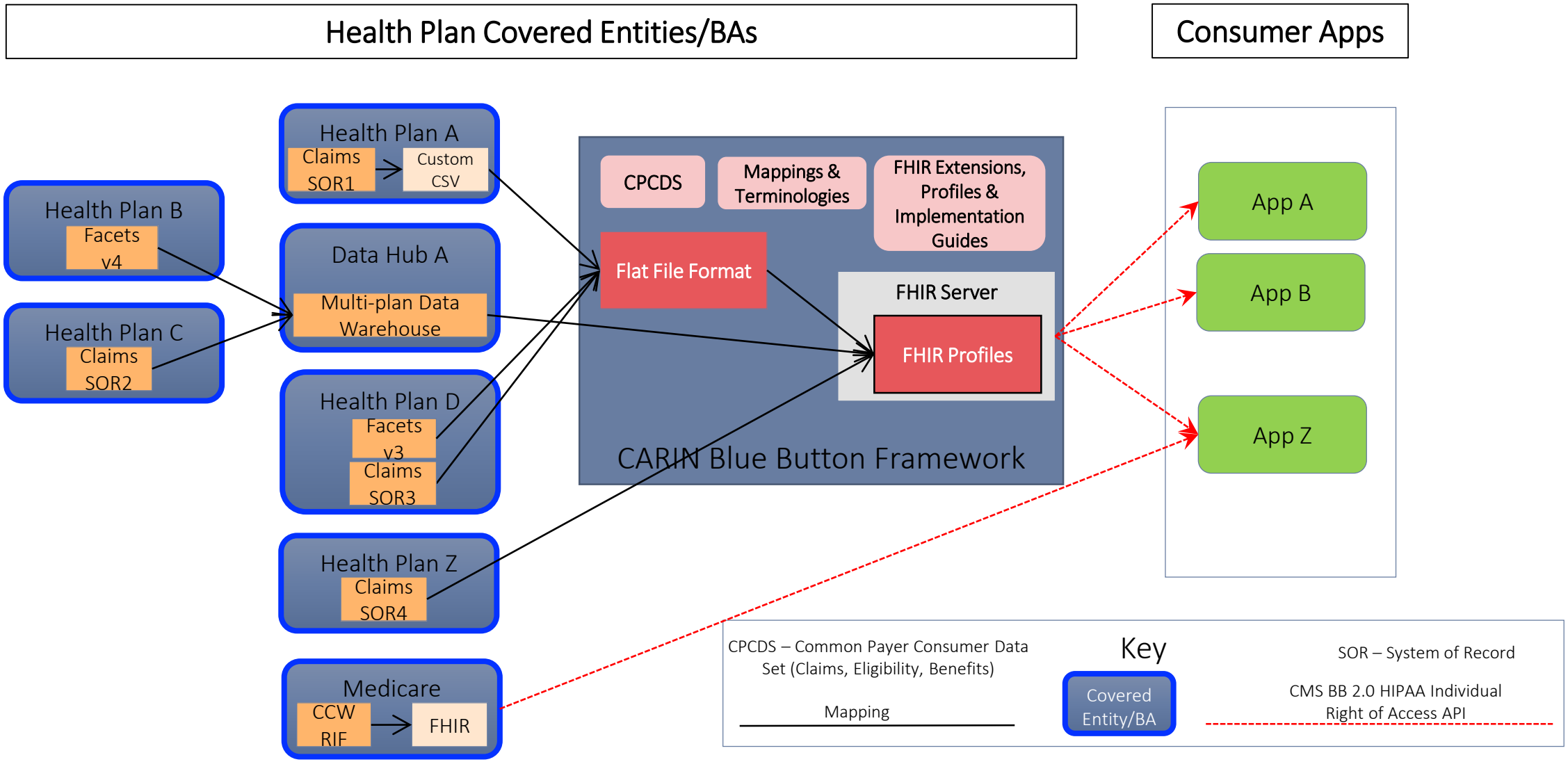
How can Plans leverage the CARIN Blue Button Framework?

1. **Map directly to FHIR Profiles**
   - Create a direct mapping from the Claims SOR to FHIR Profiles.

2. **Map to FHIR Profiles using Flat File as a bridge**
   - Generate Flat File extracts from the Claims SOR using existing ETL tools and processes.
   - Leverage CARIN Framework's common mapping from Flat File format to FHIR Profiles.

- Sharing and reuse of direct mappings from some Claims SORs in option 1 may be limited due to license restrictions or varying versions, configurations or hosting implementations.
- Option 2's bridge mapping introduces additional step & governance.
- Option 2's bridge mapping may be easier to manage than option 1's when using mature, enterprise grade ETL tools and processes.

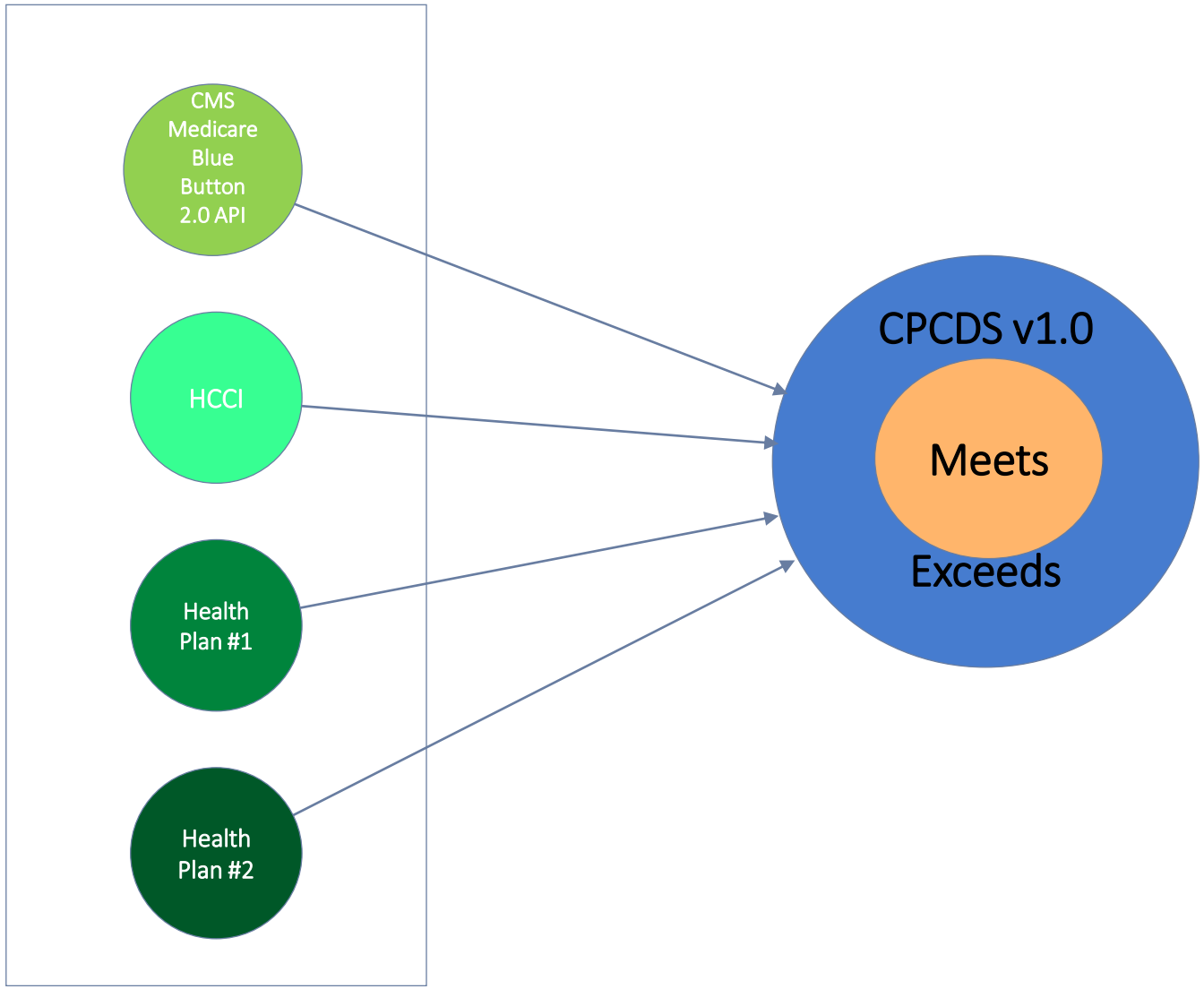
CARIN Blue Button Framework with CPCDS



Deliverables

1. Define how to meet CMS Blue Button 2.0
   a) Define the logical data set (similar to ONC 2015 Edition Common Clinical Data Set) that meets CMS Blue Button 2.0 API content – Common Payer Consumer Data Set (CPCDS) version 1.0
   b) Define the FHIR Resource Profiles that map to CPCDS version 1.0 data elements
2. Define next versions that exceed CMS Blue Button 2.0
3. Define Flat File Bridge
   a) Define Flat File format specification representing logical CPCDS data elements
   b) Define mapping from Flat File format to FHIR Resource Profiles
4. Define the checklist for launching the CARIN Blue Button Framework
   a) Implementation Guide & Profiles
   b) Flat File specification & mapping
   c) Test harness
   d) Reference implementations

Create CPCDS v1.0 By Data Element Consensus



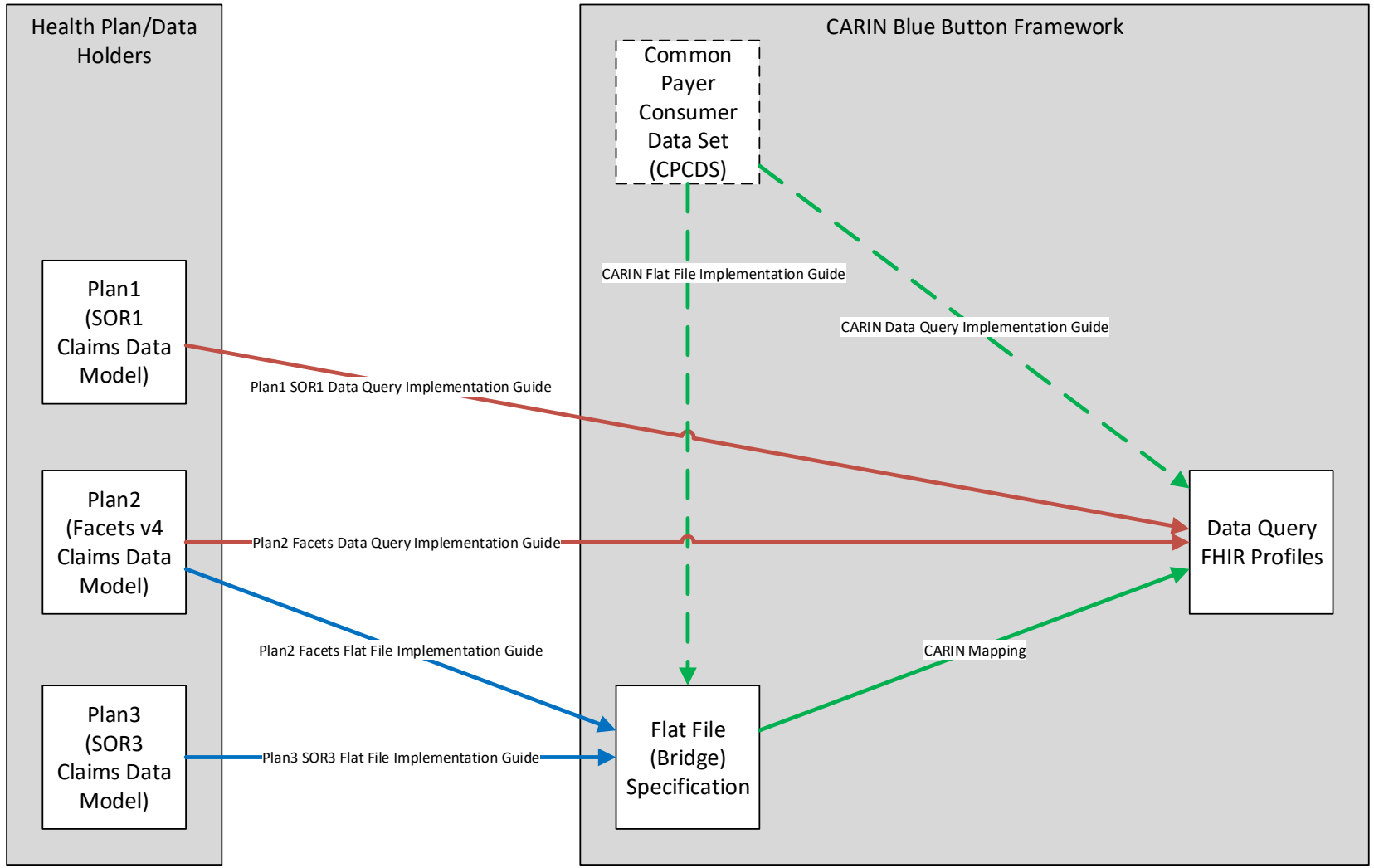
From the 2019 MA Call Letter, p.188

Expanding use of Electronic Health Data for MA Enrollees

In March, CMS launched Blue Button 2.0, which puts patients in charge of their own health data. Blue Button 2.0 provides secure beneficiary-directed data transport in a structured Fast Healthcare Interoperability Resources (FHIR) format that is developer-friendly. This will enable beneficiaries to connect their data to applications, services, and research programs they trust. Blue Button 2.0 uses open source code that is available for all plans at https://bluebutton.cms.gov/developers/.

CMS recommends and encourages plans to adopt data release platforms for their enrollees that meet or exceed the capabilities of CMS's Blue Button 2.0. CMS is contemplating future rulemaking in this area to require the adoption of such platforms by MA plans beginning CY2020.

Two Implementation Paths To Blue Button 2.0 API (FHIR Profiles)



Proposed Common Payer Consumer Data Set (CPCDS) v1.0 – Draft

Claim

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
1	Claim service start date	CLM_FROM_DT	[CLM_FST_DT]
2	Claim service end date	CLM_THRU_DT	[LST_DT]
3	Claim paid date	PD_DT	[PAID_DT]
4	Claim received date	NCH_WKLY_PROC_DT	
5	Member admission date	CLM_ADMSN_DT	The date corresponding with the onset of services. Inpatient only. [FST_ADMTDT]
6	Member discharge date	NCH_BENE_DSCHRG_DT	Inpatient only. [LAST_DISCHDT]
7	Patient account number		Provider submitted information that can be included on the claim
8	Medical record number		
9	Claim unique identifier	CLM_ID	[Z_CLMID]
10	Claim adjusted from identifier		TBD: Merged claims
11	Claim adjusted to identifier		
12	Claim diagnosis related group	CLM_DRG_CD	Inpatient only. [DRG]
13	Claim source inpatient admission code	CLM_SRC_IP_ADMSN_CD	Inpatient only. [ADMIT_TYPE]
14	Claim inpatient admission type code	CLM_IP_ADMSN_TYPE_CD	Inpatient only. [ADMIT_SRC]
~~15~~	~~Claim query code~~	~~CLAIM_QUERY_CODE~~	~~Can be obtained from type of bill fields , debit credit. Medicare specific~~
16	Claim bill facility type code	CLM_FAC_TYPE_CD	Type of bill code structure – Type of facility [TOB (1st character)]
17	Claim service classification type code	CLM_SRVC_CLSFCTN_TYPE_CD	Type of bill code structure – Type of care [TOB (2nd character)]
18	Claim frequency code	CLM_FREQ_CD	Type of bill code structure – Sequence in this episode of care [TOB (3rd character)]
19	Claim status code		denied,completed..etc
20	Claim type	NCH_CLM_TYPE_CD	Medical, vision, dental
21	Claim sub type	NCH_NEAR_LINE_REC_IDENT_CD	
22	Patient discharge status code	PTNT_DSCHRG_STUS_CD	Facility only. [DSTATUS]

Claim

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Diagnosis (0-n)		
1	Diagnosis code	PRNCPAL_DGNS_CD, ICD_DGNS_CD(1-25)	[ICD10_CM (1-25), DIAG(1-3)]
2	Present on admission	CLM_POA_IND_SW(1-25)	[POA (1-12)], hospital/in-patient only
3	Diagnosis code type	ICD_DGNS_VRSN_CD(1-25)	ICD 9 or ICD 10 [DIAG1, ICD10_CM1]
4	Diagnosis type	Primary, 1-25	primary, secondary, … [ICD10_CM(1-25)]
5	Is E code	ICD_DGNS_E_CD1	External cause of injury code. Included in Diagnosis type

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Procedure (0-n)		
1	Procedure code	ICD_PRCDR_CD(1-25)	[ICD10_PCS(1-25)]
2	Procedure date	PRCDR_DT(1-25)	[FST_DT]
3	Procedure code type		CPT/HCPCS/ICD-PCS
4	Modifier Code -1	HCPCS_1ST_MDFR_CD	[PROCMOD]
5	Modifier Code -2	HCPCS_2ND_MDFR_CD	[PROCMOD_2]
6	Modifier Code -3	HCPCS_3RD_MDFR_CD	[PROCMOD_3]
7	Modifier Code -4	HCPCS_4TH_MDFR_CD	[PROCMOD_4]

Claim

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Provider		
1	Claim billing provider NPI	CARR_CLM_BLG_NPI_NUM	[HNPI_BE]
2	Claim billing provider network status		
3	Claim attending physician NPI	AT_PHYSN_NPI	[HNPI]
4	Claim attending physician network status		
5	Claim site of service NPI	CARR_CLM_SOS_NPI_NUM	
6	Claim referring provider NPI	CARR_CLM_RFRNG_PIN_NUM	
7	Claim referring provider network status		
8	Claim performing provider NPI	PRF_PHYSN_NPI	[HNPI]
9	Claim performing provider network status		
10	Claim operating physician NPI	OP_PHYSN_NPI	
11	Claim operating physician network status		
12	Claim other physician NPI	OT_PHYSN_NPI	
13	Claim other physician network status		
14	Claim rendering physician NPI	RNDRNG_PHYSN_NPI	
15	Claim rendering physician network status		
16	Claim service location NPI	SRVC_LOC_NPI_NUM	
17	Claim PCP		[PCP]

Claim

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Amounts		
1	Claim total submitted amount	CLM_TOT_CHRG_AMT	Submitted charge amount* [CHARGE]
2	Claim total allowed Amount	NCH_CARR_CLM_ALOWD_AMT	* [CALC_ALLWD]
3	Claim patient paid amount	PTNT_PAY_AMT	PDE* [TOT_MEM_CS]
4	Claim amount paid to provider	CARR_CLM_PRMRY_PYR_PD_AMT	* [AMT_NET_PAID]
5	Member reimbursement	NCH_CLM_BENE_PMT_AMT	
6	Claim payment amount	CLM_PMT_AMT	By Payer- in this case, Medicare* [AMT_NET_PAID]
7	Claim payment denial code	CARR_CLM_PMT_DNL_CD / CLM_MDCR_NON_PMT_RSN_CD	excd disallowed code
8	Claim disallowed amount	NCH_IP_NCVRD_CHRG_AMT	*
9	Member paid deductible	NCH_BENE_IP_DDCTBL_AMT	* [DEDUCT]
10	Co-insurance liability amount	NCH_BENE_PTA_COINSRNC_LBLTY_AMT	* [COINS]
11	Copay amount		[COPAY]
12	Member liability		E.g. Non-contracted provider*
13	Claim primary payer code	NCH_PRMRY_PYR_CD	Type of carrier [PRIMARY_COV_IND]
14	Claim primary payer paid amount	NCH_PRMRY_PYR_CLM_PD_AMT	*
15	Claim secondary payer paid amount		

* = Situational

Claim (Pharmacy)

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Drug		
1	NDC code	LINE_NDC_CD	[NDC]
2	Fill date		[FILL_DT]
3	Quantity	QTY_DSPNSD_NUM	[QUANTITY]
4	Days supply		[DAYS_SUP]
5	Units	REV_CNTR_NDC_QTY_QLFR_CD	ml etc, for quantity
6	RX service reference number	RX_SRVC_RFRNC_NUM	
7	Compound code	CMPND_CD	[CMPD_IND]
8	DAW product selection code	DAW_PROD_SLCTN_CD	[DAW]
9	Fill number	FILL_NUM	[FST_FILL and RFL_NBR]
10	Dispensing status code	DSPNSNG_STUS_CD	
11	Drug cost	TOT_RX_CST_AMT	
12	Prescription origin code	RX_ORGN_CD	

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
13	IsBrand	BRND_GNRC_CD	[GNRC_IND]
14	Pharmacy service type code	PHRMCY_SRVC_TYPE_CD	
15	Patient residence code	PTNT_RSDNC_CD	
16	Submission clarification code	SUBMSN_CLR_CD	

Claim Line

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Line Service Details		
1	Service from date	LINE_1ST_EXPNS_DT	[FST_DT]
2	Line number	LINE_NUM	[CLMSEQ]
3	Service to date	LINE_LAST_EXPNS_DT	[LST_DT]
4	Type of service	LINE_CMS_TYPE_SRVC_CD	
5	Place of service code	LINE_PLACE_OF_SRVC_CD	[POS]
6	Revenue center code	REV_CNTR	[RVNU_CD]
7	Units	REV_CNTR_UNIT_CNT	Num of times service or procedure performed [UNITS]
8	NDC code	LINE_NDC_CD	[NDC]
~~9~~	~~Claim line service deductible switch~~	~~LINE_SERVICE_DEDUCTIBLE~~	
10	Quantity	REV_CNTR_NDC_QTY, QTY_DSPNSD_NUM	Quantity dispensed for the drug. [QUANTITY]
11	Quantity qualifier code	REV_CNTR_NDC_QTY_QLFR_CD	The unit of measurement for the drug. (gram, ml, etc)

Claim Line

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
	Line Amount Details		
1	Line non covered charged amount	REV_CNTR_NCVRD_CHRG_AMT	*
2	Line amount paid to member	LINE_BENE_PMT_AMT	*
3	Line patient paid amount	REV_CNTR_PTNT_RSPNSBLTY_PMT	*
4	Line payment amount	LINE_NCH_PMT_AMT	From Medicare* [AMT_NET_PAID]
5	Claim payment denial code	CARR_CLM_PMT_DNL_CD / CLM_MDCR_NON_PMT_RSN_CD	excd disallowed code
6	Line member reimbursement	LINE_BENE_PMT_AMT	* [TOT_MEM_CS]
7	Line payment amount to provider	LINE_PRVDR_PMT_AMT	* [CALC_ALLWD]
8	Line patient deductible	LINE_BENE_PTB_DDCTBL_AMT	* [DEDUCT]
9	Line primary payer paid amount	LINE_BENE_PRMRY_PYR_PD_AMT	*
10	Line secondary payer paid amount		
11	Line coinsurance amount	LINE_COINSRNC_AMT	[COINS]
12	Line submitted amount	LINE_SBMTD_CHRG_AMT	* [CHARGE]
13	Line allowed amount	LINE_ALOWD_CHRG_AMT	* [CALC_ALLWD]
14	Line member liability		E.g. Non-contracted provider*
15	Line copay amount		[COPAY]

* = Situational

Claim Line

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
Diagnosis (0-n)			
1	Diagnosis code	PRNCPAL_DGNS_CD, ICD_DGNS_CD(1-25)	[ICD10_CM (1-25), DIAG(1-3)]
2	Present on admission	CLM_POA_IND_SW(1-25)	[POA (1-12)]
3	Diagnosis code type	ICD_DGNS_VRSN_CD(1-25)	ICD 9 or ICD 10 [DIAG1, ICD10_CM1]
4	Diagnosis type	Primary, 1-25	primary, secondary, … [ICD10_CM(1-25)]
5	Is E code	ICD_DGNS_E_CD1	External cause of injury code. Included in Diagnosis type.

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
Procedure (0-n)			
1	Procedure code	ICD_PRCDR_CD(1-25)	[ICD10_PCS(1-25)]
2	Procedure date	PRCDR_DT(1-25)	[FST_DT]
3	Procedure code type		CPT/HCPCS/ICD-PCS
4	Modifier Code -1	HCPCS_1ST_MDFR_CD	[PROCMOD]
5	Modifier Code -2	HCPCS_2ND_MDFR_CD	[PROCMOD_2]
6	Modifier Code -3	HCPCS_3RD_MDFR_CD	[PROCMOD_3]
7	Modifier Code -4	HCPCS_4TH_MDFR_CD	[PROCMOD_4]

Member

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
1	Member id	BENE_ID	Unique identifier to member [Z_PATID]
2	Date of birth	DOB_DT	[YBIRTH(SDDV1) or AGE_BAND_CD (SDDV2)]
3	Date of death		
4	County	BENE_COUNTY_CD	[CBSA_CD]
5	State	BENE_STATE_CD	[STATE]
6	Country		
7	Race code	BENE_RACE_CD	
8	Ethnicity		
9	Gender code	GNDR_CD	[GDR]
10	Name		
11	Zip code	BENE_MLG_CNTCT_ZIP_CD	[MBR_ZIP_5_CD]
12	Relationship to subscriber		[REL_CD]
13	Subscriber id		

Coverage

#	CPCDS Element	CMS Medicare BB 2.0 Element	Notes [HCCI Data Element]
1	Subscriber id		
2	Coverage type		
3	Coverage status		
4	Start date		
5	End date		
6	Group id		[Z_GROUP_ID]
7	Group name		
8	Plan		
9	Payer		

CPCDS Data Dictionary & Resource Mapping

Claim

#	CPCDS Element	R4 Resource	Profile Element
1	Claim service start date	ExplanationOfBenefit	.billablePeriod
2	Claim service end date	ExplanationOfBenefit	.billablePeriod
3	Claim paid date	ExplanationOfBenefit	.payment.date
4	Claim received date	ExplanationOfBenefit	.claimReceived (EOB.extension)
5	Member admission date	ExplanationOfBenefit	.supportingInfo.category, .supportingInfo.timing[x]
6	Member discharge date	ExplanationOfBenefit	.supportingInfo.category, .supportingInfo.timing[x]
7	Patient account number	Patient	.identifier
8	Medical record number	Patient	.identifier
9	Claim unique identifier	ExplanationOfBenefit	.identifier
10	Claim adjusted from	ExplanationOfBenefit	.related
11	Claim adjusted to	ExplanationOfBenefit	.related
12	Claim diagnosis related group	ExplanationOfBenefit	.diagnosis.packageCode
13	Claim inpatient source admission code	Encounter* (extension?)	.hospitalization.admitSource
14	Claim inpatient admission type code	Encounter* (extension?)	.type

Claim

#	CPCDS Element	R4 Resource	Profile Element
~~15~~	~~Claim query code~~		
16	Claim bill facility type code	ExplanationOfBenefit	.facility
17	Claim service classification type code	?	
18	Claim frequency code	?	
19	Claim status code	ExplanationOfBenefit	.status
20	Claim type	ExplanationOfBenefit	.type
21	Claim sub type	ExplanationOfBenefit	.subType
22	Patient discharge status code	Encounter	.hospitalization.dischargeDisposition (https://bluebutton.cms.gov/resources/variables/ptnt_dschrg_stus_cd/)

Claim/Claim Line

#	CPCDS Element	R4 Resource	Profile Element
		Diagnosis (0-n)	
1	Diagnosis code	Condition	.code
2	Present on admission	ExplanationOfBenefit	.diagnosis.onAdmission
3	Diagnosis code type	Condition	.code
4	Diagnosis type	ExplanationOfBenefit	.diagnosis.type
5	Is E code	ExplanationOfBenefit	.diagnosis.type

Claim/Claim Line

#	CPCDS Element	R4 Resource	Profile Element
		Procedure (0-n)	
1	Procedure code	Procedure	.code
2	Procedure date	Procedure	.performed[x]
3	Procedure code type	Procedure	.code
4	Modifier Code -1	ExplanationOfBenefit	.item.modifier
5	Modifier Code -2	ExplanationOfBenefit	.item.modifier
6	Modifier Code -3	ExplanationOfBenefit	.item.modifier
7	Modifier Code -4	ExplanationOfBenefit	.item.modifier

Claim

#	CPCDS Element	R4 Resource	Profile Element
		Provider	
1	Claim billing provider NPI		
2	Claim billing provider network status		
3	Claim attending physician NPI		
4	Claim attending physician network status		
5	Claim site of service NPI		
6	Claim referring provider NPI		
7	Claim referring provider network status		
8	Claim performing provider NPI		
9	Claim performing provider network status		
10	Claim operating physician NPI		
11	Claim operating physician network status		
12	Claim other physician NPI		

Claim

#	CPCDS Element	R4 Resource	Profile Element
13	Claim other physician network status		
14	Claim rendering physician NPI		
15	Claim rendering physician network status		
16	Claim service location NPI		
17	Claim PCP		

Claim

#	CPCDS Element	R4 Resource	Profile Element
	Amounts		
1	Claim total submitted amount		
2	Claim total allowed Amount		
3	Claim patient paid amount		
4	Claim amount paid to provider		
5	Member reimbursement		
6	Claim payment amount		
7	Claim payment denial code		
8	Claim disallowed amount		
9	Member paid deductible		
10	Co-insurance liability amount		
11	Copay amount		

Claim

#	CPCDS Element	R4 Resource	Profile Element
12	Member liability		
13	Claim primary payer code		
14	Claim primary payer paid amount		
15	Claim secondary payer paid amount		

Claim (Pharmacy)

#	CPCDS Element	R4 Resource	Profile Element
		Drug	
1	NDC code		
2	Fill date		
3	Quantity		
4	Days supply		
5	Units		
6	RX service reference number		
7	Compound code		
8	DAW product selection code		
9	Fill number		
10	Dispensing status code		
11	Drug cost		
12	Prescription origin code		

Claim (Pharmacy)

#	CPCDS Element	R4 Resource	Profile Element
13	IsBrand		
14	Pharmacy service type code		
15	Patient residence code		
16	Submission clarification code		

Claim Line

#	CPCDS Element	R4 Resource	Profile Element
	Line Service Details		
1	Service from date	ExplanationOfBenefit	.item.serviced[x]
2	Line number	ExplanationOfBenefit	.item.sequence
3	Service to date	ExplanationOfBenefit	.item.serviced[x]
4	Type of service	ExplanationOfBenefit	.item.category
5	Place of service code	ExplanationOfBenefit	.item.location[x]
6	Revenue center code	ExplanationOfBenefit	.item.revenue
7	Units	ExplanationOfBenefit	.item.quantity?
8	NDC code	ExplanationOfBenefit	.item.productOrService?
~~9~~	~~Claim line service deductible switch~~		
10	Quantity		
11	Quantity qualifier code		

Claim Line

#	CPCDS Element	R4 Resource	Profile Element
	Line Amount Details		
1	Line non covered charged amount		
2	Line amount paid to member		
3	Line patient paid amount		
4	Line payment amount		
5	Claim payment denial code		
6	Line member reimbursement		
7	Line payment amount to provider		
8	Line patient deductible		
9	Line primary payer paid amount		
10	Line secondary payer paid amount		
11	Line coinsurance amount		

Claim Line

#	CPCDS Element	R4 Resource	Profile Element
12	Line submitted amount		
13	Line allowed amount		
14	Line member liability		
15	Line copay amount		

Member

#	CPCDS Element	R4 Resource	Profile Element
1	Member id	Patient	.identifier
2	Date of birth	Patient	.birthDate
3	Date of death	Patient	.deceased[x]
4	County	Patient	.address
5	State	Patient	.address
6	Country	Patient	.address
7	Race code	Patient	.extension (http://hl7.org/fhir/us/core/StructureDefinition/us-core-race)
8	Ethnicity	Patient	.extension (http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity)
9	Gender code	Patient	.gender
10	Name	Patient	.name
11	Zip code	Patient	.address
12	Relationship to subscriber		
13	Subscriber id		

Coverage

#	CPCDS Element	R4 Resource	Profile Element
1	Subscriber id	Coverage	.subscriberId
2	Coverage type	Coverage	.type
3	Coverage status	Coverage	.status
4	Start date	Coverage	.period
5	End date	Coverage	.period
6	Group id	Coverage	.class
7	Group name		
8	Plan	Coverage	.class
9	Payer	Coverage	.payor

Smart on Value

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Appendix

Health Plan Claims Extracts

- Health Plans send Claims data to their vendors and business associates under several use cases (care coordination, utilization management, predictive analytics) using a variety of custom, one-off, flat file extracts.
- No industry wide standard exists for Health Plans to send (adjudicated) Claims data to either Covered or Non-covered Entities.
- EDI X12 standards for Claims only exist for Providers' HIPAA-covered transactions with Health Plans (i.e. Claim Submission – 837, Claim Acknowledgement – 277CA, and Payment/Remittance Advice – 835)
- Most Health Plans generate the flat file Claims extracts from their Claims System of Record (SOR) i.e. Claims Adjudication System, using mature, enterprise grade Extract, Transform and Load (ETL) tools and processes.