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## Revision History

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## Contents

Complex Type Data Elements .....	4
Coding Element .....	4
Codeable Concept Element.....	4
Attachment Element .....	4
Period Element.....	4
Range Element .....	4
Ratio Element.....	4
SampledData Element.....	5
Quantity Element.....	5
Duration Element.....	5
Age Element .....	5
Money Element.....	5
Annotation Element.....	6
Identifier Element .....	6
Address element .....	6
HumanName Element.....	6
ContactPoint Element .....	7
Timing Element .....	7
Primitive Type Data Elements.....	7
Reference Element.....	8

## Complex Type Data Elements

### Coding Element

Name	Type	Description	Cardinality
system	String	Identity of the terminology system. In YYYY format.	0..1
version	String	Version of the system - if relevant.	0..1
code	code	Symbol in syntax defined by the system.	0..1
display	String	Representation defined by the system.	0..1
userSelected	Boolean	If this coding was chosen directly by the user.	0..1

### Codeable Concept Element

Name	Type	Description	Cardinality
coding	<a href="#">Coding</a>	Code defined by a terminology system.	0..*
text	String	Plain text representation of the concept.	0..1

### Attachment Element

Name	Type	Description	Cardinality
contentType	code	Mime type of the content, with charset etc. MimeType (Required)	0..1
language	code	Human language of the content (BCP-47) Common Languages (Extensible but limited to All Languages)	0..1
data	base64Binary	Data inline, base64ed	0..1
url	String	Uri where the data can be found	0..1
size	unsignedInt	Number of bytes of content (if url provided)	0..1
hash	base64Binary	Hash of the data (sha-1, base64ed)	0..1
title	String	Label to display in place of data.	0..1
creation	dateTime	Date attachment was first created.	0..1

### Period Element

Name	Type	Description	Cardinality
start	dateTime	Starting time with inclusive boundary.	0..1
end	dateTime	End time with inclusive boundary, if not ongoing.	0..1

### Range Element

Name	Type	Description	Cardinality
low	Simple Quantity	Low limit	0..1
high	Simple Quantity	High Limit	0..1

### Ratio Element

Name	Type	Description	Cardinality
numerator	Quantity	Numerator value	0..1
denominator	Quantity	Denominator value	0..1

## SampledData Element

Name	Type	Description	Cardinality
origin	Simple Quantity	Zero value and units	1..1
period	decimal	Number of milliseconds between samples	1..1
factor	decimal	Multiply data by this before adding to origin	0..1
lowerLimit	decimal	Lower limit of detection	0..1
upperLimit	decimal	Upper limit of detection	0..1
dimensions	positiveInt	Number of sample points at each time point	1..1
data	string	Decimal values with spaces, or "E"   "U"   "L"	0..1

## Quantity Element

Name	Type	Description	Cardinality
value	decimal	Numerical value (with implicit precision)	0..1
comparator	code	<   <=   >=   > - how to understand the value	0..1
unit	string	Unit representation	0..1
system	uri	System that defines coded unit form	0..1
code	code	Coded form of the unit	0..1

## Duration Element

Name	Type	Description	Cardinality
value	decimal	Numerical value (with implicit precision)	0..1
comparator	code	<   <=   >=   > - how to understand the value	0..1
unit	string	Unit representation	0..1
system	uri	System that defines coded unit form	0..1
code	code	Coded form of the unit	0..1

## Age Element

Name	Type	Description	Cardinality
value	decimal	Numerical value (with implicit precision)	0..1
comparator	code	<   <=   >=   > - how to understand the value	0..1
unit	string	Unit representation	0..1
system	uri	System that defines coded unit form	0..1
code	code	Coded form of the unit	0..1

## Money Element

Name	Type	Description	Cardinality
value	decimal	Numerical value (with implicit precision)	0..1
currency	code	ISO 4217 Currency Code ( <a href="#">CurrencyCode</a> )	0..1

## Annotation Element

Name	Type	Description	Cardinality
author[x]	String   Reference	Individual responsible for the annotation	0..1
time	dateTime	When the annotation was made	0..1
text	markdown	The annotation - text content	0..1

## Identifier Element

Name	Type	Description	Cardinality
use	code	IdentifierUse (Required) usual   official   temp   secondary (If known)	0..1
type	CodeableConcept	Description of identifier.	0..1
system	Uri	The namespace for the identifier value.	0..1
value	String	The value that is unique.	0..1
assigner	Reference (Organization)	Organization that issued id (may be just text).	0..1
period	Period	Time period when ID is/was valid for use.	0..1

## Address element

Name	Type	Description	Cardinality
use	code	home   work   temp   old - purpose of this address.	0..1
type	code	postal   physical   both	0..1
text	String	Text representation of the address.	0..1
line	String	Street name, number, direction & P.O. Box etc.	0..*
city	String	Name of city, town etc.	0..1
district	String	District name (aka county).	0..1
state	String	Sub-unit of country (abbreviations ok).	0..1
postalCode	String	Postal code for area.	0..1
country	String	Country (e.g. can be ISO 3166 2 or 3 letter code).	0..1
period	Period	Time period when address was/is in use.	0..1

## HumanName Element

Name	Type	Description	Cardinality
use	code	usual   official   temp   nickname   anonymous   old   maiden	0..1
text	String	Text representation of the full name.	0..1
family	String	Family name (often called 'Surname').	0..1
given	String	Given names (not always 'first'). Includes middle names. This repeating element order: Given Names appear in the correct order for presenting the name.	0..*
prefix	String	Parts that come before the name. This repeating element order: Prefixes appear in the correct order for presenting the name.	0..*
suffix	String	Parts that come after the name.	0..*

		This repeating element order: Suffixes appear in the correct order for presenting the name.	
Period	Period	Time period when the name was/is in use.	0..1

## ContactPoint Element

Name	Type	Description	Cardinality
System	code	phone   fax   email   pager   url   sms   other	0..1
value	String	The actual contact point details	0..1
use	code	home   work   temp   old   mobile - purpose of this contact point	0..1
rank	Positive Integer	The actual contact point details.	0..1
Period	Period	Time period when the contact point was/is in use.	0..1

## Timing Element

Name	Type	Description	Cardinality
event	dateTime	When the event occurs	0..*
code	CodeableConcept	BID   TID   QID   AM   PM   QD   QOD   +	0..1
repeat	Element	When the event is to occur	0..1
	bounds[x]	Duration   Range   Period	0..1
	count	Number of times to repeat	0..1
	countMax	Maximum number of times to repeat	0..1
	duration	How long when it happens	0..1
	durationMax	How long when it happens (Max)	0..1
	durationUnit	s   min   h   d   wk   mo   a - unit of time (UCUM)	0..1
	frequency	Event occurs frequency times per period	0..1
	frequencyMax	Event occurs up to frequencyMax times per period	0..1
	period	Event occurs frequency times per period	0..1
	periodMax	Upper limit of period (3-4 hours)	0..1
	periodUnit	s   min   h   d   wk   mo   a - unit of time (UCUM)	0..1
	dayOfWeek	mon   tue   wed   thu   fri   sat   sun	0..*
	timeOfDay	Time of day for action	0..*
	when	Code for time period of occurrence ( <a href="#">EventTiming</a> )	0..*
	offset	BID   TID   QID   AM   PM   QD   QOD   +	0..1

## Primitive Type Data Elements

FHIR Name	Description
boolean	true   false
integer	A signed 32-bit integer
string	A sequence of Unicode characters
decimal	Rational numbers that have a decimal representation.
uri	A Uniform Resource Identifier Reference (RFC 3986). Note: URIs are case sensitive.

<b>url</b>	A Uniform Resource Locator. Common URL protocols are http{s};, ftp;, mailto: and mlpp;, though many others are defined
<b>canonical</b>	A URI that refers to a resource by its canonical URL.
<b>base64Binary</b>	A stream of bytes, base64 encoded (RFC 4648)
<b>instant</b>	An instant in time - known at least to the second and always includes a time zone. instant is a more constrained dateTime.
<b>date</b>	Dates SHALL be valid dates. Format – yyyy-MM-dd
<b>dateTime</b>	Dates SHALL be valid dates. If hours and minutes are specified, a time zone SHALL be populated. Format – yyyy-MM-dd HH:mm:ss and yyyy-MM-dd'T'HH:mm:ssZ
<b>time</b>	A time during the day, with no date specified. Seconds must be provided due to schema type constraints but may be zero-filled and may be ignored. The time "24:00" is not allowed, and neither is a time zone
<b>code</b>	Indicates that the value is taken from a set of controlled strings. Technically, a code is restricted to a string which has at least one character and no leading or trailing whitespace.
<b>oid</b>	An OID represented as a URI (RFC 3001); e.g. urn:oid:1.2.3.4.5
<b>id</b>	Any combination of upper- or lower-case ASCII letters ('A'..'Z', and 'a'..'z', numerals ('0'..'9'), '-' and '.', with a length limit of 64 characters. (This might be an integer, an un-prefixed OID, UUID or any other identifier pattern that meets these constraints.)
<b>markdown</b>	A string that may contain markdown syntax for optional processing by a markdown presentation engine
<b>unsignedInt</b>	Any non-negative integer (e.g. >= 0)
<b>positiveInt</b>	Any positive integer (e.g. >= 1)
<b>uuid</b>	A UUID (aka GUID) represented as a URI; e.g. urn:uuid:c757873d-ec9a-4326-a141-556f43239520

## Reference Element

Name	Type	Description	Cardinality
reference	String	Literal reference, Relative, internal or absolute URL	0..1