

CRISP Connectivity – Ambulatory Practices

An Information Brief

November 2017

Introduction

In 2015, the Chesapeake Regional Information System for our Patients (CRISP)¹ was tasked with implementing the Integrated Care Network (ICN, or initiative)² in Maryland to enhance care coordination in support of the All-Payer Model.³ The initiative consists of several key objectives that collectively aim to improve health information exchange (HIE) across the State by connecting providers in multiple settings⁴ through shared infrastructure.⁵ This effort builds upon the CRISP infrastructure and makes available tools, data, and services that support care coordination goals and complement broader interventions and programs for patients with complex needs.

Expanding ambulatory connectivity to CRISP is essential to achieving HIE goals of providing the right information to the right place at the right time.^{6, 7} This is especially important as Maryland prepares for the new Total Cost of Care (TCOC) Model in 2019 that aims to deliver more person-centered care.⁸ Ambulatory connectivity will enable broader access to more complete patient information, such as a patient's primary care provider, a key component in coordinating care activities.⁹ In Maryland, about 71 percent of physicians have adopted electronic health records (EHRs).¹⁰ While EHRs enable connectivity to CRISP, certain challenges influence the rate of ambulatory connectivity, from time and resources required for EHR integration, including vendor commitment, to providers' willingness to connect.

Services and Integration

CRISP offers four levels of connectivity to ambulatory practices. Tier 1 provides initial connectivity for accessing CRISP core services, including the Encounter Notification Service,¹¹ Clinical Query Portal,¹² and

¹ In 2009, the Maryland Health Care Commission and the Health Services Cost Review Commission (HSCRC) designated CRISP to build and maintain the technical infrastructure to support a statewide health information exchange.

² The ICN was conceived following recommendations from a care coordination workgroup formed by HSCRC and the Maryland Department of Health. Workgroup participants included staff from hospitals, physicians, and other key stakeholders.

³ In January 2014, Maryland entered into a five-year innovation grant from the Centers for Medicare & Medicaid Services for a new All-Payer Model with the goals of improving quality and reducing costs. For more information, visit: innovation.cms.gov/initiatives/Maryland-All-Payer-Model.

⁴ Includes, but is not limited to, hospitals, physician practices, and long-term care facilities.

⁵ Shared infrastructure, when deployed through cooperation and collaboration, is intended to avoid duplication of costs and give care managers more complete data about a patient.

⁶ Increased access and use of electronic information has the potential to improve efficiency, reduce errors, avoid duplicate tests or procedures, and enhance population health through electronic surveillance, among other things.

⁷ Berry, Kate. "HIE Quality Check" Journal of AHIMA 84, no.2 (March 2013): 28-32. Available at: library.ahima.org/doc?oid=106195#.Wda07dVSxyz.

⁸ The current All-Payer Model runs from January 1, 2014 through December 31, 2018 and is hospital focused. In order to provide more comprehensive care across the entire health system, Maryland developed a new TCOC Model that encompasses coordination activities for all health care services patients receive in both hospital and non-hospital settings. The TCOC Model is anticipated to go into effect by January 1, 2019. For more information, visit: hscrc.maryland.gov/Pages/progression.aspx.

⁹ The primary means for capturing a patient's primary care provider is in ambulatory practices' EHR systems.

¹⁰ Maryland Board of Physicians licensure data, 2015-2016.

¹¹ Enables physicians to receive real-time alerts when a patient is hospitalized.

¹² Enables clinical staff to securely look up and view available patient information.

the Prescription Drug Monitoring Program.^{13, 14} Tier 2 improves data collection by allowing practices' EHR systems to send patient lists to CRISP for ENS alerts. Tier 3 enhances data sharing and availability by enabling practices' EHRs to send patient clinical information to CRISP. CRISP helps practices in Tier 3 automate reporting of electronic clinical quality measures (eCQMs) for federal and State incentives through CALiPHR (CQM Aligned Population Health Reporting). Tier 4 allows for bidirectional exchange¹⁵ of data between practices' EHRs and CRISP.¹⁶

Approach

The Maryland Health Care Commission analyzed practice level connectivity data from CRISP for Tiers 2, 3, and 4 as of October 2017. CRISP data was compared with data from the Maryland Board of Physicians to assess ambulatory connectivity at the practice level statewide. Tier 1 data was excluded from the analysis to focus on assessing progress to date in bidirectional exchange of data from ambulatory practices' EHRs and CRISP.

Observations

Much progress remains to be made in increasing ambulatory connectivity to CRISP. Approximately seven percent of practices in the State have achieved Tier 2. Almost three quarters of these practices have achieved Tier 3; progression towards Tier 4 has been minimal. The large majority of practices connected to CRISP are hospital-owned with multiple locations within the State. Connectivity among primary care generally exceeds specialists as illustrated below (Table 1).

Table 1: Snapshot of Ambulatory Connectivity as of October 2017										
Type	Practices		Tier 2		Tier 3		Tier 4		Total (Tiers 2, 3, and 4)	
	#	%	#	%	#	%	#	%	#	%
Primary Care	2,483	42	79	3	129	5	35	1	243	10
Specialists	3,379	58	38	1	114	3	15	<1	167	5
Total	5,862	100	117	2	243	4	50	1	410	7

Note: Practices cannot advance to the next Tier until they have achieved the requirements for the prior tier.

About three quarters of the 24 jurisdictions statewide have practices that have made some progress converting to Tiers 2 and 3 (Figures 1 and 2). Almost half of Tier 2 primary care practices in 18 jurisdictions have advanced to Tier 3, with the exception of Calvert, Carroll, and Frederick counties. Half of these jurisdictions have had moderate advancement to Tier 4 (Figure 1). Progress made by specialists in 19 jurisdictions has been about the same for Tiers 2 and 3, with slow advancement to Tier 4 by only five of the jurisdictions (Figure 2). Overall, a higher number of practices in Anne Arundel, Baltimore, Baltimore City, Montgomery and Prince George's have achieved Tiers 2 or 3 due to the population density

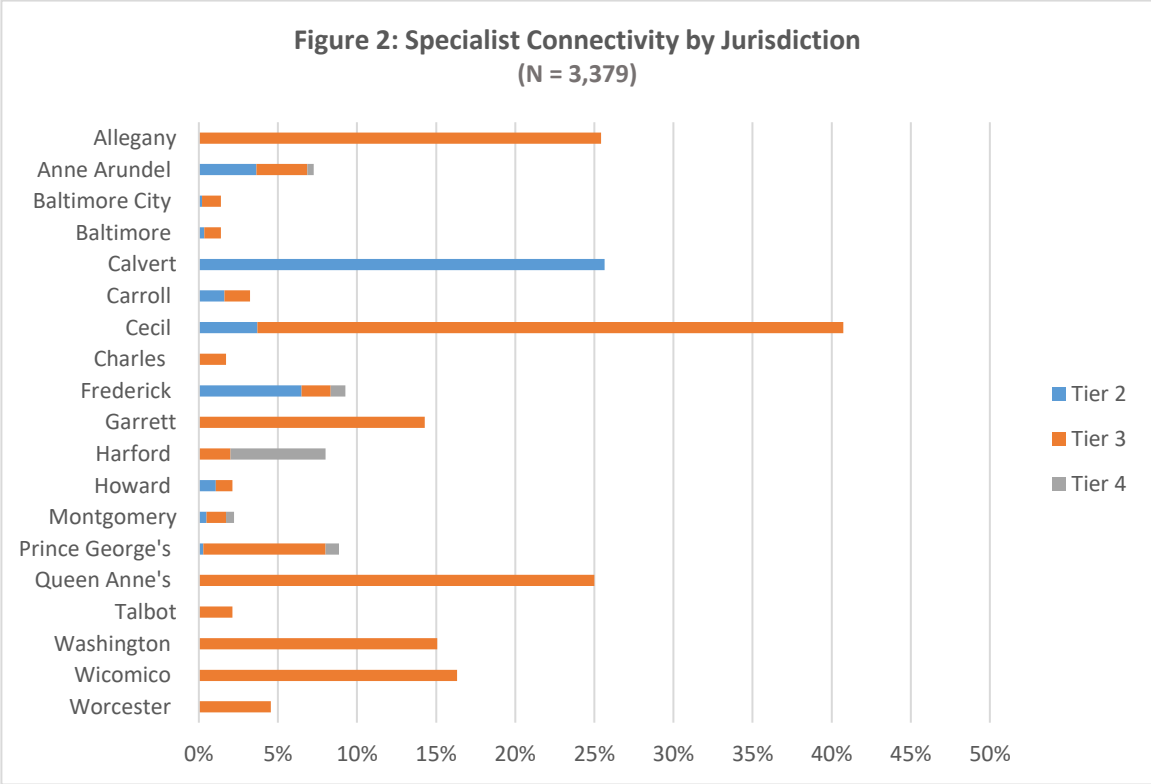
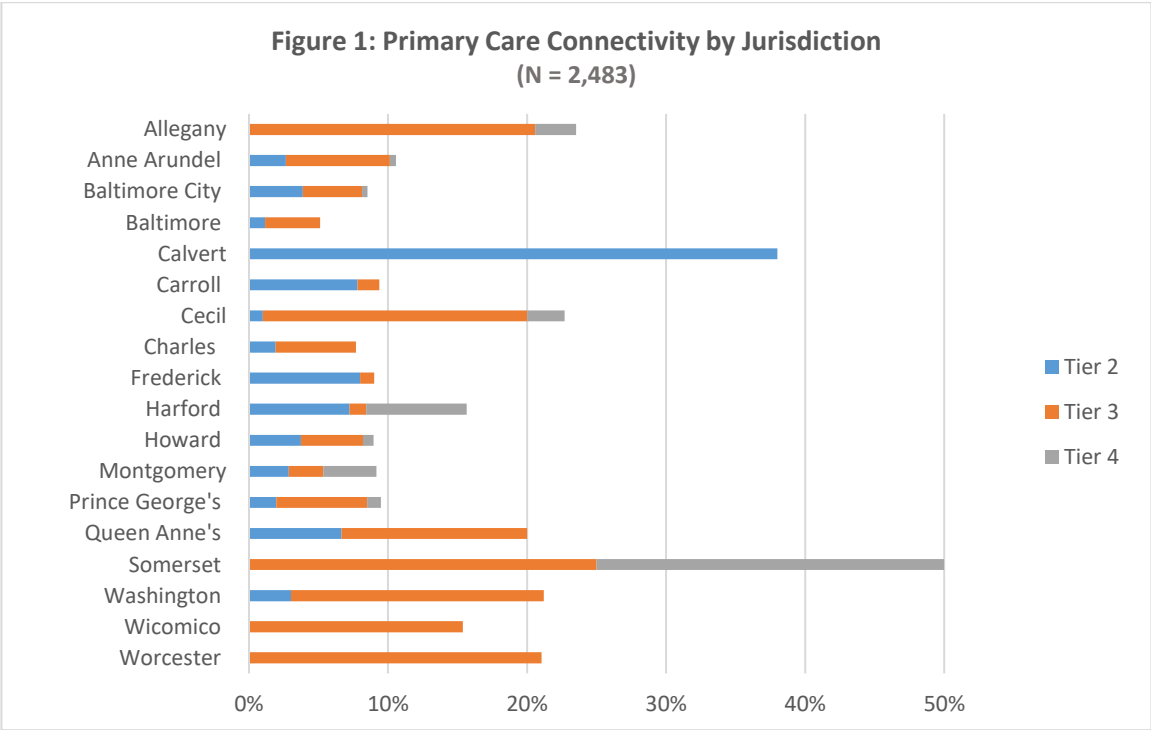
¹³ Monitors the prescribing and dispensing of drugs that contain controlled dangerous substances.

¹⁴ As of the end of Q3 2017, about 14 and 26 percent of practices were live with the Encounter Notification Service and Query Portal, respectively. For updated information about CRISP's progress, visit: mhcc.maryland.gov/mhcc/pages/hit/hit_hie/documents/HIE_CRISP_Quarterly_Rpt.pdf.

¹⁵ Bidirectional exchange allows for two-way sharing of data between two health care entities involved in the care of a patient. This includes retrieving data from an EHR and returning relevant data back into that EHR as needed. Examples of data shared can include patient referrals, physical histories, progress notes, and care plans, among other things.

¹⁶ For more information on CRISP ambulatory services and integration, visit: crisphealth.org/wp-content/uploads/2016/03/CRISP-Services_Connectivity-Tier-3_25_16.pdf.

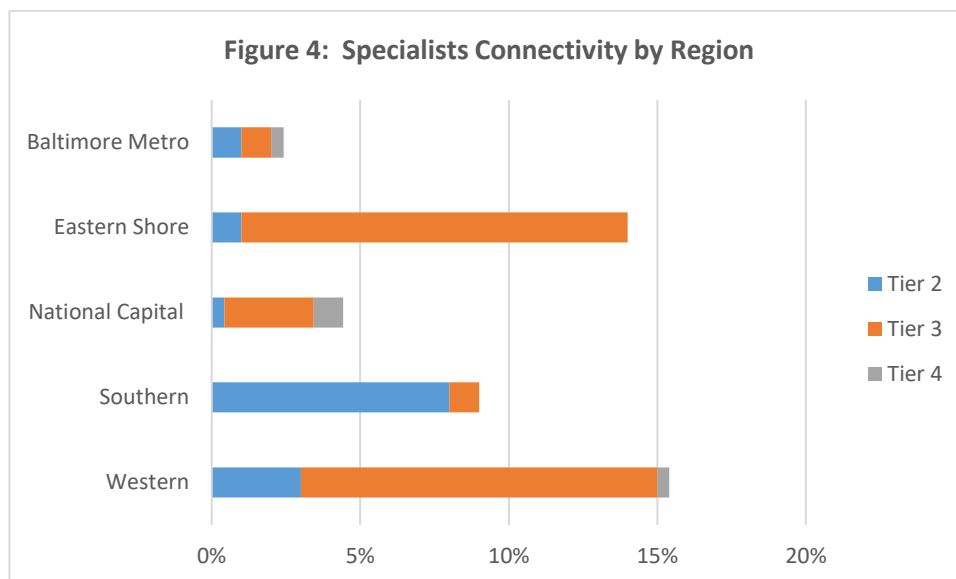
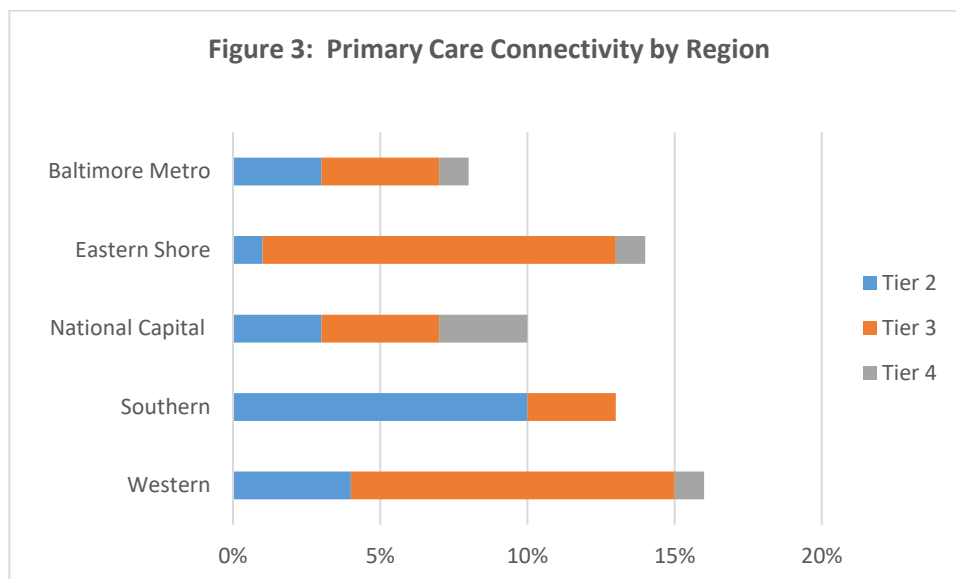
of these jurisdictions, which includes a larger concentration of practices. There has been no Tier 2 connectivity in more vulnerable rural areas of the State that tend to experience more challenges with access to care. This includes Caroline, Dorchester, Kent, and St. Mary's counties, which comprise a portion of the Eastern Shore and Southern region in Maryland.¹⁷



Notes: Jurisdictions not shown have not connected practices at Tier 2, 3, and 4.

¹⁷ See Appendix A for more detailed information on connectivity by jurisdiction.

Sizable work is needed across all regions in Maryland to accelerate ambulatory connectivity to CRISP as the State embarks on the TCOC Model and other quality care delivery programs. As more providers participate in these risk-based payment models driven by eCQMs, sharing data becomes increasingly relevant. A substantial task lies ahead to increase the rate of connectivity in the Baltimore Metro and National Capital regions, given the large number of providers and patients that reside in these areas of the State. These regions have had slower growth in connectivity by primary care and specialists as compared to the Eastern Shore, Southern, and Western regions that have a significantly smaller population (Figures 3 and 4).¹⁸



Notes: Baltimore Metro includes Baltimore City, Anne Arundel, Baltimore, Carroll, Harford and Howard; Eastern Shore includes Wicomico, Somerset, Worcester, Cecil, Kent, Queen Anne's, Talbot, Caroline, and Dorchester; National Capital includes Montgomery and Prince George's; Southern region includes Calvert, Charles, and St. Mary's; Western includes Garrett, Allegany, Frederick, and Washington.

¹⁸ See Appendix B for more detailed information on connectivity by region.

Looking Ahead

A necessary next step is to expand efforts to increase momentum in educating practices about the value proposition in connecting to CRISP. This includes raising awareness about grant funding opportunities provided by the Data Exchange Support Program (DESP), a program that helps offset the cost of connectivity to CRISP for practices participating in Medicaid.¹⁹ Highlighting the benefits of available services, such as the CALiPHR tool in Tier 3, can support practices, especially those already participating in Accountable Care Organizations and other risk-based models. CALiPHR supports practices by streamlining how eQMs are calculated and reported, which is particularly helpful for practices that must report on the same and/or different eQMs for various programs.

Several factors related to practice readiness influence the rate of ambulatory connectivity. These include time and resources, especially for smaller practices balancing many priorities. Generally, practices struggle with understanding the shifting business model in health care from one of volume to value. A 2016 study conducted by the Deloitte Center for Health Solutions gauged physician awareness and readiness about the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA).²⁰ Findings suggest that most physicians have limited awareness of the requirements and have a lot of work ahead of them to implement strategies that allow them to deliver higher-quality and more cost-effective care.²¹

An even bigger challenge is with industry readiness overall, specifically interoperability²² among multiple EHRs through an HIE to enable bidirectional exchange of data. Though progress in sharing data has generally been slow, evolving care redesign and payment reforms will continue to increase demand for interoperability. Currently, well over 100 EHR vendor products are diffused in ambulatory practices throughout Maryland. This exacerbates challenges from a resource perspective, given the amount of time and cost to integrate with CRISP.²³ In addition, while connectivity cost can be subsidized through DESP and ICN grants, long-term costs, such as vendor maintenance fees, can be concerning to practices.

Remarks

There is enormous value in making electronic patient information more accessible to members of a care team, and its potential has not yet been fully realized. Work remains for CRISP to connect more ambulatory practices in Maryland in order to achieve the goals of the ICN. Ambulatory connectivity is expected to modestly increase in the months ahead. Concerns regarding the pace of connectivity and ongoing support costs will need to be addressed. Continued collaboration among stakeholders in Maryland is paramount. Leveraging the foundation developed since 2015 puts Maryland in a unique position to serve as a model for other states in transforming care delivery and improving population health.

¹⁹ Practices can earn upwards to \$33,000 for completing specific milestones.

²⁰ The survey was a nationally representative sample of 600 primary care and specialty physicians that were asked questions pertaining to value-based payment models and health IT.

²¹ Deloitte, *Are physicians ready for MACRA and its changes?* 2016. Available at: www2.deloitte.com/content/dam/Deloitte/us/Documents/life-sciences-health-care/us-lshc-are-physicians-ready-MACRA.pdf.

²² Interoperability is the extent to which systems and devices can exchange data and interpret that shared data.

²³ Establishing connectivity can be time and resource intensive. This is especially true for EHR vendors with a smaller market share in Maryland as there is less opportunity for them to achieve economies of scale.

Appendix A: Connectivity by Jurisdiction

Primary Care								
Jurisdiction	Tier 2		Tier 3		Tier 4		Total	
	#	%	#	%	#	%	#	%
Allegany (n = 34)	0	0	7	21	1	3	8	24
Anne Arundel (n = 227)	6	3	17	7	1	<1	24	11
Baltimore City (n = 258)	10	4	11	4	1	<1	22	9
Baltimore (n = 430)	5	1	17	4	0	0	22	5
Calvert (n = 26)	10	38	0	0	0	0	10	38
Caroline (n = 9)	0	0	0	0	0	0	0	0
Carroll (n = 64)	5	8	1	2	0	0	6	9
Cecil (n = 37)	1	3	7	19	1	3	9	24
Charles (n = 52)	1	2	3	6	0	0	4	8
Dorchester (n = 12)	0	0	0	0	0	0	0	0
Frederick (n = 73)	6	8	1	1	0	0	7	10
Garrett (n = 9)	0	0	0	0	0	0	0	0
Harford (n = 83)	6	7	1	1	6	7	13	16
Howard (n = 134)	5	4	6	4	1	1	12	9
Kent (n = 10)	0	0	0	0	0	0	0	0
Montgomery (n = 524)	15	3	13	2	20	4	48	9
Prince George's (n = 306)	6	2	20	7	3	1	29	9
Queen Anne's (n = 15)	1	7	2	13	0	0	3	20
St. Mary's (n = 30)	0	0	0	0	0	0	0	0
Somerset (n = 4)	0	0	1	25	1	25	2	50
Talbot (n = 22)	0	0	0	0	0	0	0	0
Washington (n = 66)	2	3	12	18	0	0	14	21
Wicomico (n = 39)	0	0	6	15	0	0	6	15
Worcester (n = 19)	0	0	4	21	0	0	4	21
Total (N = 2,483)	79	3	129	5	35	1	243	10

Specialists								
Jurisdiction	Tier 2		Tier 3		Tier 4		Total	
	#	%	#	%	#	%	#	%
Allegany (n = 59)	0	0	15	25	0	0	15	25
Anne Arundel (n = 248)	9	4	8	3	1	<1	18	7
Baltimore City (n = 504)	1	<1	6	1	0	0	7	1
Baltimore (n = 577)	2	<1	6	1	0	0	8	1
Calvert (n = 39)	10	26	0	0	0	0	10	26
Caroline (n = 0)	0	0	0	0	0	0	0	0
Carroll (n = 62)	1	2	1	2	0	0	2	3
Cecil (n = 27)	1	4	10	37	0	0	11	41
Charles (n = 58)	0	0	1	2	0	0	1	2
Dorchester (n = 10)	0	0	0	0	0	0	0	0
Frederick (n = 108)	7	6	2	2	1	1	10	9
Garrett (n = 7)	0	0	1	14	0	0	1	14
Harford (n = 94)	0	0	2	2	6	6	8	9
Howard (n = 188)	2	1	2	1	0	0	4	2
Kent (n = 7)	0	0	0	0	0	0	0	0
Montgomery (n = 813)	4	0	10	1	4	<1	18	2
Prince George's (n = 350)	1	0	27	8	3	1	31	9
Queen Anne's (n = 8)	0	0	2	25	0	0	2	25
St. Mary's (n = 26)	0	0	0	0	0	0	0	0
Somerset (n = 3)	0	0	0	0	0	0	0	0
Talbot (n = 47)	0	0	1	2	0	0	1	2
Washington (n = 73)	0	0	11	15	0	0	11	15
Wicomico (n = 49)	0	0	8	16	0	0	8	16
Worcester (n = 22)	0	0	1	5	0	0	1	5
Total (N = 3,379)	38	1	114	3	15	<1	167	5

Appendix B: Connectivity by Region

Primary Care								
Region	Tier 2		Tier 3		Tier 4		Total	
	#	%	#	%	#	%	#	%
Baltimore Metro (n = 1196)	37	3	53	4	9	1	99	8
Eastern Shore (n = 167)	2	1	20	12	2	1	24	14
National Capital (n = 830)	21	3	33	4	23	3	77	9
Southern (n = 108)	11	10	3	3	0	0	14	13
Western (n = 182)	8	4	20	11	1	1	29	16
Total (N = 2,483)	79	3	129	5	35	1	243	10

Specialists								
Region	Tier 2		Tier 3		Tier 4		Total	
	#	%	#	%	#	%	#	%
Baltimore Metro (n = 1673)	15	1	25	1	7	<1	47	3
Eastern Shore (n = 173)	1	1	22	13	0	0	23	13
National Capital (n = 1163)	5	<1	37	3	7	1	49	4
Southern (n = 123)	10	8	1	1	0	0	11	9
Western (n = 247)	7	3	29	12	1	<1	37	15
Total (N = 3,379)	38	1	114	3	15	<1	167	5