

HMS HOLDINGS CORP

FORM 10-Q (Quarterly Report)

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2017

Or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 000-50194



HMS HOLDINGS CORP.

(Exact name of registrant as specified in its charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

11-3656261

(I.R.S. Employer Identification No.)

5615 High Point Drive, Irving, TX
(Address of principal executive offices)

75038
(Zip Code)

(Registrant's Telephone Number, Including Area Code)
(214) 453-3000

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer
(Do not check if a smaller reporting company)

Smaller reporting company

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

As of November 6, 2017, there were approximately 84,083,565 shares of the registrant's common stock (par value \$0.01 per share) outstanding.

HMS HOLDINGS CORP. AND SUBSIDIARIES
QUARTERLY REPORT ON FORM 10-Q
FOR THE THREE AND NINE MONTHS ENDED SEPTEMBER 30, 2017
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Glossary of Terms and Abbreviations

2016 Form 10-K	Company's Annual Report on Form 10-K for the year ended December 31, 2016
ACA	Patient Protections and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010
ACO	Accountable Care Organizations
ADR	Additional Documentation Request
ALJ	Administrative Law Judges
ASC	Accounting Standards Codification
ASO	Administrative Service Only
CHIP	Children's Health Insurance Program
CMS	Centers for Medicare & Medicaid Services
CMS NHE Projections	Centers for Medicare & Medicaid Services National Health Expenditures
CMS Reserve	Estimated liability for appeals associated with our contract with CMS
COSO	Committee of Sponsoring Organizations of the Treadway Commission
DMD	Domestic Manufacturing Deduction
DRA	Deficit Reduction Act of 2005
DSO	Days Sales Outstanding
ERISA	Employment Retirement Income Security Act of 1974
Exchange Act	Securities Exchange Act of 1934, as amended
FASB	Financial Accounting Standards Board
FFS	Fee For Services
HIPAA	Health Insurance Portability and Accountability Act of 1996
HITECH	Health Information Technology for Economic and Clinical Health
IRS	U.S Internal Revenue Service
LIBOR	Intercontinental Exchange London Interbank Offered Rate
Medicare Advantage	Medicaid and Medicare managed care
MMIS	Medicaid Management Information Systems
PBM	Pharmacy Benefit Managers
PHI	Protected health information
PI	Payment Integrity
R&D Credits	Research and Development Tax Credits
RAC	Recovery Audit Contractor
RFI	Request for information
RFP	Request for proposals
SEC	U.S. Securities and Exchange Commission
Securities Act	Securities Act of 1933, as amended
Section 199 Deduction	U.S. Production activities deduction
SG&A	Selling, general and administrative expenses
TPL	Third-party liability
U.S. GAAP	United States Generally Accepted Accounting Principles
VHA	Veterans Health Administration
Credit Agreement	The Credit Agreement dated December 16, 2011 among HMS Holdings Corp., the Guarantor Party thereto, the Lenders party thereto and Citibank, N.A. as Administrative Agent, as amended and restated in its entirety by the Amended and Restated Credit Agreement dated as of May 3, 2013 among HMS Holdings Corp., the Guarantor Party thereto, the Lenders party thereto and Citibank, N. A. as Administrative Agent, as amended
2006 Stock Plan	HMS Holdings Corp. Fourth Amended and Restated 2006 Stock Plan
2011 HDI Plan	HDI Holdings, Inc. Amended 2011 Stock Option and Stock Issuance Plan
2016 Omnibus Plan	HMS Holdings Corp. 2016 Omnibus Incentive Plan
401(k) Plan	HMS Holdings Corp. 401(k) Plan

Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q of HMS Holdings Corp. (together with its subsidiaries “HMS,” the “Company,” “we,” “our” or “us”) contains “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995. From time to time, we also provide forward-looking statements in other materials we release to the public, as well as oral forward-looking statements. Such statements give our current expectations or forecasts of future events; they do not relate strictly to historical or current facts.

We have tried, wherever possible, to identify such statements by using words such as “aim,” “anticipate,” “believe,” “estimate,” “expect,” “forecast,” “intend,” “likely,” “may,” “plan,” “project,” “seek,” “target,” “will,” “would,” “could,” “should,” and similar expressions and references to guidance, although some forward-looking statements may be expressed differently. In particular, these include statements relating to future actions, business plans, objectives and prospects, future operating and financial performance or results of current and anticipated services, the benefits and synergies to be obtained from completed and future acquisitions, the future performance of companies we have acquired, sufficiency of our appeals reserves, the future effect of different accounting determinations or remediation activities, our refinancing plans and future share repurchases, our future expenses, interest rates and financial results, and the impact of changes to U.S. healthcare legislation or healthcare spending affecting Medicare, Medicaid or other publicly funded or subsidized health programs.

Forward-looking statements are not guarantees and involve risks, uncertainties and assumptions that are difficult to predict. Actual results may differ materially from past results and forward-looking statements if known or unknown risks or uncertainties materialize, or if underlying assumptions prove inaccurate. These risks and uncertainties include, among other things:

- *our ability to execute our business plans or growth strategy;*
- *our ability to innovate, develop or implement new or enhanced solutions or services;*
- *the nature of investment and acquisition opportunities we are pursuing, and the successful execution of such investments and acquisitions;*
- *our ability to successfully integrate acquired businesses and realize synergies;*
- *variations in our results of operations;*
- *our ability to accurately forecast the revenue under our contracts and solutions;*
- *our ability to protect our systems from damage, interruption or breach, and to maintain effective information and technology systems and networks;*
- *our ability to protect our intellectual property rights, proprietary technology, information processes, and know-how;*
- *significant competition for our solutions and services;*
- *our failure to maintain a high level of customer retention or the unexpected reduction in scope or termination of key contracts with major customers;*
- *customer dissatisfaction, our non-compliance with contractual provisions or regulatory requirements;*
- *our failure to meet performance standards triggering significant costs or liabilities under our contracts;*
- *our inability to manage our relationships with information and data sources and suppliers;*
- *reliance on sub-contractors and other third party providers and parties to perform services;*
- *our ability to continue to secure contracts and favorable contract terms through the competitive bidding process and to prevail in protests or challenges to contract awards;*
- *pending or threatened litigation;*
- *unfavorable outcomes in legal proceedings;*
- *our success in attracting qualified employees and members of our management team;*
- *our ability to generate sufficient cash to cover our interest and principal payments under our revolving credit facility, or to borrow, obtain financing, maintain liquidity or use credit;*
- *unexpected changes in our effective tax rates;*
- *unanticipated increases in the number or amount of claims for which we are self-insured;*
- *our ability to successfully remediate material weaknesses in our internal control over financial reporting;*
- *changes in the U.S. healthcare environment or healthcare financing system, including regulatory, budgetary or political actions that affect procurement practices and healthcare spending;*
- *our failure to comply with applicable laws and regulations governing individual privacy and information security or to protect such information from theft and misuse;*

- negative results of government or customer reviews, audits or investigations;
- state or federal limitations related to outsourcing or certain government programs or functions;
- restrictions on bidding or performing certain work due to perceived conflicts of interests;
- the market price of our common stock and lack of dividend payments; and
- anti-takeover provisions in our corporate governance documents.

These and other risks are discussed under the headings “Part I, Item 1. Business,” “Part I, Item 1A, Risk Factors,” “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk,” of our 2016 Form 10-K and in other documents we file with the SEC.

Any forward-looking statements made by us in this Quarterly Report on Form 10-Q speak only as of the date on which they are made. We undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law. We caution readers not to place undue reliance upon any of these forward-looking statements. You are advised, however, to consult any further disclosures we make on related subjects in our other filings with the SEC, including, but not limited to, our Current Reports on Form 8-K.

Market and Industry Data

This Quarterly Report on Form 10-Q contains market, industry and government data and forecasts that have been obtained from publicly available information, various industry publications and other published industry sources. We have not independently verified the information and cannot make any representation as to the accuracy or completeness of such information. None of the reports and other materials of third party sources referred to in this Quarterly Report on Form 10-Q were prepared for use in, or in connection with, this Quarterly Report.

PART I — FINANCIAL INFORMATION
Item 1. Financial Statements

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	September 30, 2017	December 31, 2016
	(unaudited)	
Assets		
Current assets:		
Cash and cash equivalents	\$ 79,484	\$ 175,999
Accounts receivable, net of allowance of \$11,276 and \$10,772, at September 30, 2017 and December 31, 2016, respectively	178,700	173,582
Prepaid expenses	14,369	13,699
Income tax receivable	6,085	3,354
Deferred financing costs, net	1,227	—
Other current assets	289	1,001
Total current assets	280,154	367,635
Property and equipment, net	95,034	92,167
Goodwill	485,540	379,716
Intangible assets, net	98,090	37,797
Deferred financing costs, net	—	2,790
Other assets	2,403	2,650
Total assets	\$ 961,221	\$ 882,755
Liabilities and Shareholders' Equity		
Current liabilities:		
Revolving credit facility	\$ 240,000	\$ —
Accounts payable, accrued expenses and other liabilities	47,484	59,402
Estimated liability for appeals	30,754	30,755
Total current liabilities	318,238	90,157
Long-term liabilities:		
Revolving credit facility	—	197,796
Net deferred tax liabilities	41,441	22,717
Deferred rent	4,883	5,427
Other liabilities	9,275	10,048
Total long-term liabilities	55,599	235,988
Total liabilities	373,837	326,145
Commitments and contingencies (Note 11)		
Shareholders' equity:		
Preferred stock -- \$0.01 par value; 5,000,000 shares authorized; none issued	—	—
Common stock -- \$0.01 par value; 175,000,000 shares authorized; 96,492,808 shares issued and 84,078,730 shares outstanding at September 30, 2017; 95,966,852 shares issued and 83,552,774 shares outstanding at December 31, 2016	965	959
Capital in excess of par value	361,462	345,025
Retained earnings	340,441	326,110
Treasury stock, at cost: 12,414,078 shares at September 30, 2017 and December 31, 2016	(115,484)	(115,484)
Total shareholders' equity	587,384	556,610
Total liabilities and shareholders' equity	\$ 961,221	\$ 882,755

See accompanying notes to unaudited consolidated financial statements.

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share amounts)
(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenue	\$ 125,673	\$ 122,860	\$ 372,719	\$ 364,130
Cost of services:				
Compensation	49,012	48,298	149,784	142,042
Data processing	12,067	9,541	33,131	28,269
Occupancy	4,332	3,388	12,109	10,647
Direct project expenses	9,548	10,997	30,092	36,952
Other operating expenses	7,446	8,465	21,212	20,649
Amortization of acquisition related software and intangible assets	8,167	6,390	21,825	20,416
Total cost of services	90,572	87,079	268,153	258,975
Selling, general and administrative expenses	22,240	23,131	73,400	66,245
Total operating expenses	112,812	110,210	341,553	325,220
Operating income	12,861	12,650	31,166	38,910
Interest expense	(3,109)	(2,121)	(7,734)	(6,313)
Interest income	14	105	201	215
Income before income taxes	9,766	10,634	23,633	32,812
Income taxes	3,394	(3,412)	9,302	4,326
Net income	\$ 6,372	\$ 14,046	\$ 14,331	\$ 28,486
Basic income per common share:				
Net income per common share -- basic	\$ 0.08	\$ 0.17	\$ 0.17	\$ 0.34
Diluted income per common share:				
Net income per common share -- diluted	\$ 0.07	\$ 0.17	\$ 0.17	\$ 0.33
Weighted average shares:				
Basic	83,923	84,101	83,778	84,338
Diluted	85,730	84,853	85,586	85,993

See accompanying notes to unaudited consolidated financial statements.

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY
(in thousands, except share amounts)
(unaudited)

	<u>Common Stock</u>		<u>Capital in</u>		<u>Treasury Stock</u>		<u>Total Shareholders' Equity</u>
	<u># of Shares Issued</u>	<u>Par Value</u>	<u>Excess of Par Value</u>	<u>Retained Earnings</u>	<u># of Shares</u>	<u>Amount</u>	
Balance at December 31, 2016	95,966,852	\$ 959	\$ 345,025	\$326,110	12,414,078	\$ (115,484)	\$ 556,610
Net income	—	—	—	14,331	—	—	14,331
Stock-based compensation expense	—	—	16,761	—	—	—	16,761
Exercise of stock options	162,861	2	2,578	—	—	—	2,580
Vesting of restricted stock units, net of shares withheld for employee tax	363,095	4	(2,902)	—	—	—	(2,898)
Balance at September 30, 2017	96,492,808	\$ 965	\$ 361,462	\$340,441	12,414,078	\$ (115,484)	\$ 587,384

See accompanying notes to the unaudited consolidated financial statements.

HMS HOLDINGS CORP. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Nine Months Ended September 30,	
	2017	2016
Operating activities:		
Net income	\$ 14,331	\$ 28,486
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization of property and equipment	20,599	18,875
Amortization of intangible assets	15,947	15,101
Amortization of deferred financing costs	1,563	1,563
Stock-based compensation expense	16,761	10,747
Deferred income taxes	(726)	(5,902)
(Gain) / Loss on disposal of assets	—	(970)
Change in fair value of contingent consideration	2,450	—
Changes in operating assets and liabilities, net of acquisition:		
Accounts receivable	5,630	8,534
Prepaid expenses	757	(1,905)
Other current assets	712	2,579
Other assets	163	(38)
Income taxes receivable / (payable)	(2,731)	(15,368)
Accounts payable, accrued expenses and other liabilities	(20,357)	(2,584)
Estimated liability for appeals	(1)	(2,896)
Net cash provided by operating activities	55,098	56,222
Investing activities:		
Acquisition of a business, net of cash acquired	(171,174)	(20,910)
Proceeds from sale of cost basis investment	—	2,496
Purchases of property and equipment	(11,656)	(8,796)
Investment in capitalized software	(10,664)	(4,910)
Net cash used in investing activities	(193,494)	(32,120)
Financing activities:		
Proceeds from exercise of stock options	2,580	2,940
Payments of tax withholdings on behalf of employees for net-share settlement for stock-based compensation	(2,898)	(1,090)
Payments on capital lease obligations	(5)	(43)
Proceeds from revolving credit facility	42,204	—
Net cash provided by financing activities	41,881	1,807
Net (decrease) / increase in cash and cash equivalents	(96,515)	25,909
Cash and Cash Equivalents		
Cash and cash equivalents at beginning of year	175,999	145,610
Cash and cash equivalents at end of period	\$ 79,484	\$ 171,519
Supplemental disclosure of cash flow information:		
Cash paid for income taxes	\$ 12,317	\$ 19,478
Cash paid for interest	\$ 5,819	\$ 4,597
Supplemental disclosure of non-cash activities:		
Change in balance of accrued property and equipment purchases	\$ (414)	\$ (176)

See accompanying notes to the unaudited consolidated financial statements.

HMS HOLDINGS CORP. AND SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
For the Three and Nine Months Ended September 30, 2017 and 2016
(unaudited)

1. Business and Summary of Significant Accounting Policies

(a) Business

HMS is a leading provider of cost containment solutions in the U.S. healthcare marketplace. Using innovative technology as well as extensive data services and powerful analytics, the Company delivers coordination of benefits, payment integrity, and health management and member engagement solutions through its operating subsidiaries to help at-risk healthcare organizations recover improper payments; prevent future improper payments; reduce fraud, waste and abuse; better manage the care their members receive; and ensure regulatory compliance. The Company serves commercial health plans, state government agencies, federal programs, at-risk providers, pharmacy benefit managers and employers.

The accompanying consolidated financial statements and notes are unaudited. Accordingly, they do not include all of the information and notes required by U.S. GAAP for complete financial statements. These statements include all adjustments (consisting of normal recurring accruals) that management considers necessary to present a fair statement of the Company's results of operations, financial position and cash flows. The results reported in these unaudited consolidated financial statements should not be regarded as necessarily indicative of results that may be expected for the entire year. It is suggested that these unaudited consolidated financial statements be read in conjunction with the Company's consolidated financial statements as of and for the year ended December 31, 2016 which were filed with the SEC as part of the 2016 Form 10-K. The consolidated balance sheet as of December 31, 2016 included herein was derived from audited financial statements, but does not include all disclosures required by U.S. GAAP.

The preparation of the Company's unaudited consolidated financial statements requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, primarily accounts receivable, intangible assets, fixed assets, accrued expenses, estimated liability for appeals, the disclosure of contingent liabilities at the date of the unaudited consolidated financial statements and the reported amounts of revenue and expenses during the reporting periods. The Company's actual results could differ from those estimates.

HMS is managed and operates as one business segment, with a single management team reporting to the Chief Executive Officer. The unaudited consolidated financial statements include HMS accounts and transactions and those of the Company's wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

(b) Summary of Significant Accounting Policies

There have been no material changes to the Company's significant accounting policies that are referenced in the 2016 Form 10-K.

Recently Adopted Accounting Pronouncements

In March 2016, the FASB issued ASU No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*, ("ASU 2016-09") that changes the accounting for certain aspects of share-based payments to employees. The new guidance requires excess tax benefits and tax deficiencies to be recorded in the income statement when stock awards vest or are settled. In addition, cash flows related to excess tax benefits are no longer separately classified as a financing activity apart from other income tax cash flows. The standard also allows companies to repurchase more of an employee's vesting shares for tax withholding purposes without triggering liability accounting, clarifies that all cash payments made to tax authorities on an employee's behalf for withheld shares should be presented as a financing activity on the cash flows statement and provides an accounting policy election to account for forfeitures as they occur. ASU 2016-09 was effective for annual reporting periods beginning after December 15, 2016, including interim periods within such annual reporting periods with early adoption permitted. The Company elected to early adopt the new guidance in the fourth quarter of fiscal year 2016 which required us to reflect any adjustments as of January 1, 2016, the beginning of the annual period that includes the interim period of adoption. The primary impact of adoption was the recognition of excess tax benefits in the provision for income taxes rather than paid-in capital for all periods in fiscal year 2016. Additional amendments to the accounting for income taxes and minimum statutory withholding tax requirements had no impact to retained earnings as of January 1, 2016, where the cumulative effect of these changes were required to be recorded. The Company elected to continue to estimate forfeitures expected to occur to determine the amount of compensation cost to be recognized in each period. The Company elected to apply the presentation requirements for cash flows related to excess tax benefits retrospectively to all periods presented which resulted in an increase to both net cash from operating activities and net cash from financing activities of \$1.9 million for the nine months ended September 30, 2016. Adoption of the new standard resulted in the recognition of net excess tax benefits in the provision for income taxes rather than paid-in capital of \$1.9 million for the three and nine months ended September 30, 2016. Additionally, for the three and nine months ended September 30, 2016, income tax expense decreased and net income increased \$1.9 million and earnings per share increased \$0.02 as compared to previously reported amounts. The presentation requirements for cash flows related to employee taxes paid for withheld shares had no impact to any of the periods presented on the consolidated statements of cash flow since such cash flows have historically been presented as a financing activity.

Recently Issued Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers* (Topic 606) (“ASU 2014-09”), which is the new comprehensive revenue recognition standard that will supersede all existing revenue recognition guidance under U.S. GAAP. The FASB has recently issued several amendments to the standard. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within such annual reporting periods with early adoption permitted. The Company does not plan to early adopt this guidance and therefore will adopt on January 1, 2018. The guidance permits two methods of adoption: retrospectively to each prior reporting period presented (full retrospective method), or retrospectively with the cumulative effect of initially applying the guidance recognized at the date of initial application (modified retrospective method). The Company will adopt ASU 2014-09 using the modified retrospective method. The Company, with the assistance of external consultants, has developed and is currently following an implementation plan. In connection with the implementation plan, the Company has performed a review of a significant number of historical contracts and is in process of assessing the overall financial statement impact of this assessment. Depending on the results of the Company’s assessment, there could be material changes to the timing and recognition of revenues and certain associated expenses. The Company expects to complete the assessment process, including quantifying the overall impact to the Company’s results of operations by the end of the fourth quarter of 2017.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* (“ASU 2016-02”). ASU 2016-02 will require most lessees to recognize a majority of the company’s leases on the balance sheet, which will increase reported assets and liabilities. ASU 2016-02 is effective for annual reporting periods beginning after December 15, 2018 including interim periods within such annual reporting periods with early adoption permitted. The Company has not early adopted this guidance and is currently evaluating the impact on the Company’s consolidated financial statements of adopting this guidance. The Company does not expect this to have a material impact to the Company’s results of operations.

In August 2016, the FASB issued ASU No. 2016-15, *Statements of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments* (“ASU 2016-15”). ASU 2016-15 clarifies where certain cash receipts and cash payments are presented and classified in the statement of cash flows. The amendments are effective for annual reporting periods beginning after December 15, 2017, and for interim reporting periods within such annual periods. The Company is currently evaluating the impact on the Company’s financial statements of adopting this guidance. The Company does not expect this to have a material impact to the Company’s consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805) – Clarifying the Definition of a Business* (“ASU 2017-01”). The amendments are effective for annual periods beginning after December 15, 2017, including interim periods within those periods. The Company is currently evaluating the impact on the Company’s financial statements of adopting this guidance. The Company does not expect this to have a material impact to the Company’s consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, *Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* (“ASU 2017-04”). ASU 2017-04 simplifies the manner in which an entity is required to test for goodwill impairment by eliminating Step 2 from the goodwill impairment test. The amendment is effective for public entities that are SEC filers prospectively for their annual, or any interim, goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for all entities for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the impact on the Company’s financial statements of adopting this guidance. The Company does not expect this to have a material impact to the Company’s consolidated financial statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation – Stock Compensation (Topic 718) – Scope of Modification Accounting* (“ASU 2017-09”). ASU 2017-09 finalizes previous proposals regarding the complexity around share-based payment awards for modifications. The amendment is effective for public entities that are SEC filers for annual and interim periods beginning after December 15, 2017. Early adoption is permitted, including adoption in any interim period, for reporting periods for which financial statements have not yet been issued. The Company is currently evaluating the impact on the Company’s financial statements of adopting this guidance. The Company does not expect this to have a material impact to the Company’s consolidated financial statements.

2. Business Combinations

On April 17, 2017, the Company completed the acquisition of 100% of the outstanding capital stock of Eliza Holding Corp. (“Eliza”), for a preliminary purchase price of \$171.6 million funded with available liquidity of approximately 75% cash on hand and 25% from the Company’s existing credit line. Eliza is a cloud based technology platform which provides comprehensive and personalized health engagement solutions designed to improve clinical outcomes and reduce costs. Eliza reaches and engages members through a proprietary, scalable technology solution that leverages a multi-channel communications platform incorporating consumer and proprietary data sources, analytics, and behavior-driven program design to help clients achieve desired outcomes.

The purchase price was subject to certain post-closing purchase price adjustments and the initial purchase price allocation as of the date of acquisition was based on a preliminary valuation. Estimates and assumptions for which the Company is still obtaining or evaluating information are subject to change up to one year from the acquisition date as that additional information becomes available and adjustments may require a change in the amounts allocated to goodwill during the periods in which the adjustments are determined. The intangible assets are valued using various methods which requires several judgments, including growth rates, discount rates, customer attrition rates, and expected levels of revenues, earnings, cash flows and tax rates. The intangible assets are amortized over their estimated useful lives on a straight-line basis and are not expected to be deductible for taxable purposes. As such, the Company recorded a net deferred tax liability which is comprised of deferred tax liabilities recognized in connection with the acquired intangible assets partially offset by deferred tax assets associated with acquired net operating loss carryforwards and credits. The goodwill recognized from the acquisition was a result of synergies to be realized from future revenue growth, is not deductible for tax purposes, has an indefinite useful life and will be included in the Company’s annual impairment testing or between annual tests if an indicator of impairment exists.

During the third quarter of fiscal 2017, the Company made adjustments to the preliminary purchase price allocation which resulted in an increase of \$8.9 million to the fair value of acquired intangible assets, an increase of \$3.4 million to the deferred tax liability associated with the acquired intangible assets and a decrease of \$5.5 million to goodwill. The Company also changed the estimated useful life of the acquired customer relationships intangible asset from 36 years to 15 years. The purchase price allocation is still preliminary and subject to change throughout the remainder of the measurement period based on the finalization of the detailed valuations. The updated preliminary allocation of the purchase price to the fair value of the assets acquired and the liabilities assumed as of April 17, 2017, the effective date of the acquisition, is as follows (*in thousands*) :

Cash and cash equivalents	\$	435
Accounts receivable		10,748
Prepaid expenses		1,427
Property and equipment		1,146
Intangible assets		76,240
Goodwill		105,677
Other assets		63
Accounts payable		(2,620)
Deferred tax liability		(19,450)
Other liabilities		(2,057)
Total purchase price	\$	171,609

The purchase price allocated to the intangibles acquired was as follows (*in thousands*) :

			Useful Life (years)
Customer relationships	\$	56,200	15
Intellectual property		19,600	6
Trade name		310	1.5
Restrictive covenants		130	1
Fair value of intangibles acquired	\$	76,240	

Acquisition costs recorded to selling, general and administrative expenses were as follows (*in thousands*) :

Other operating expenses - consulting fees	\$	3,515
Other operating expenses - legal fees		832
Other operating expenses - transaction costs		185
Acquisition-related costs	\$	4,532

Goodwill was determined based on the difference between the purchase price and the fair values of the tangible and intangible assets acquired.

The financial results of Eliza have been included in the Company's consolidated financial statements since the date of acquisition. Eliza contributed approximately \$17.5 million in revenue to HMS results of operations from the date of acquisition through September 30, 2017.

3. Accounts Receivable and Allowance

The Company's accounts receivable, net, consisted of the following (*in thousands*) :

	September 30, 2017	December 31, 2016
Accounts receivable	\$ 189,976	\$ 184,354
Allowance	(11,276)	(10,772)
Accounts receivable, net	\$ 178,700	\$ 173,582

A summary of the activity in the allowance was as follows (*in thousands*) :

	September 30, 2017	December 31, 2016
Balance--beginning of period	\$ 10,772	\$ 11,464
Provision	11,509	21,583
Charge-offs	(11,005)	(22,383)
Recoveries	—	108
Balance--end of period	\$ 11,276	\$ 10,772

4. Goodwill and Intangible Assets

Intangible assets consisted of the following (*in thousands, except for useful life*) :

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Useful Life (years)
September 30, 2017				
Customer relationships	\$ 159,290	\$ (84,106)	\$ 75,184	5 - 15
Trade name	16,246	(13,263)	2,983	1.5 - 5
Intellectual property	21,700	(1,952)	19,748	3 - 7
Restrictive covenants	263	(88)	175	1 - 5
Total	\$ 197,499	\$ (99,409)	\$ 98,090	
December 31, 2016				
Customer relationships	\$ 103,090	\$ (71,914)	\$ 31,176	5 - 10
Trade name	15,936	(11,393)	4,543	3 - 5
Intellectual property	2,100	(140)	1,960	3 - 7
Restrictive covenants	133	(15)	118	3 - 5
Total	\$ 121,259	\$ (83,462)	\$ 37,797	

Amortization expense of intangible assets is expected to approximate the following (*in thousands*):

Year ending December 31,

Remainder of 2017	\$	5,944
2018		22,921
2019		8,322
2020		6,868
2021		6,540
Thereafter		47,495

For the three months ended September 30, 2017 and 2016, amortization expense related to intangible assets was \$6.2 million and \$5.0 million, respectively. For the nine months ended September 30, 2017 and 2016, amortization expense related to intangible assets was \$15.9 million and \$15.1 million, respectively.

The changes in the carrying amount of goodwill were as follows (*in thousands*) :

Balance at December 31, 2016	\$	379,716
Eliza acquisition		105,677
Essette adjustment		147
Balance at September 30, 2017	\$	485,540

5. Accounts Payable, Accrued Expenses and Other Liabilities

Accounts payable, accrued expenses and other liabilities consisted of the following (*in thousands*) :

	September 30, 2017	December 31, 2016
Accounts payable, trade	\$ 10,686	\$ 13,847
Accrued compensation and other	17,062	28,507
Accrued operating expenses	19,736	17,048
Total accounts payable, accrued expenses and other liabilities	\$ 47,484	\$ 59,402

6. Income Taxes

The Company's effective tax rate for the nine months ended September 30, 2017 and 2016 was 39.4%, and 13.2%, respectively. The increase in effective tax rate was primarily due to the Company's recognition of tax benefits in the third quarter of 2016 for the research and development tax credits and the U.S. production activities deduction for all open tax years at that time. Excluding the tax impacts related to equity compensation and acquisition related costs and deferred adjustments, our effective tax rate would approximate 38.6% for the nine months ended September 30, 2017. For the nine months ended September 30, 2017, the differences between the federal statutory rate and our effective tax rate are state taxes, acquisition related costs and deferred adjustments, equity compensation impacts, unrecognized tax benefits and permanent differences including the U.S. production activities deduction and research and development tax credits.

Included in Other liabilities on the consolidated balance sheets are the total amount of unrecognized tax benefits of approximately \$7.9 million and \$7.4 million, as of September 30, 2017 and December 31, 2016, respectively, (net of the federal benefit for state issues) that, if recognized, would favorably affect the Company's future effective tax rate. Also included in other liabilities on the consolidated balance sheets, are accrued liabilities for interest expense and penalties related to unrecognized tax benefits of \$0.7 million and \$0.6 million as of September 30, 2017 and December 31, 2016, respectively. HMS includes interest expense and penalties in the provision for income taxes in the unaudited consolidated statements of income. The amount of interest expense (net of federal and state income tax benefits) and penalties in the unaudited consolidated statements of income for the nine months ended September 30, 2017 and 2016 was \$0.1 million and \$0.3 million, respectively. The Company believes it is reasonably possible that the amount of unrecognized tax benefits may decrease by \$0.6 million over the next twelve months, due to the expiration of the statute of limitations in various state jurisdictions.

HMS files income tax returns with the U.S. Federal government and various state and local jurisdictions. HMS is no longer subject to U.S. Federal income tax examinations for years before 2012. The Internal Revenue Service recently opened an audit of tax years 2013 and 2014 related to the refund filings in 2016. HMS operates in a number of state and local jurisdictions. Accordingly, HMS is subject to state and local income tax examinations based upon the various statutes of limitations in each jurisdiction.

7. Estimated Liability For Appeals

Under the Company's contracts with certain commercial health plan customers and its Medicare RAC contracts with CMS, HMS recognizes revenue when HMS claim findings are sent to the Company's customers for offset against future claim payments to providers. These contracts permit providers the right to appeal HMS claim findings and to pursue additional appeals if the initial appeal is found in favor of HMS's customer. HMS accrues an estimated liability for these appeals based on the amount of revenue that is subject to appeals and which are probable of being adjudicated in favor of providers following their successful appeal. The Company's estimates are based on the Company's historical experience with appeals. The estimated liability for appeals represents the Company's best estimate of the potential amount of repayments related to appeals of HMS claim findings for which revenue was previously recognized by HMS.

The provision included in the estimated liability for appeals is recorded as an offset to revenue in the Company's unaudited consolidated statements of income. The total estimated liability for appeals balance of \$30.8 million and \$30.8 million as of September 30, 2017 and December 31, 2016, respectively, includes \$18.8 million and \$17.3 million, respectively, of Medicare RAC claim findings which have been adjudicated in favor of providers, and \$9.8 million and \$11.1 million, respectively, of the Company's estimate of the potential amount of Medicare RAC repayments that are probable of being adjudicated in favor of providers following a successful appeal. Additionally, the total estimated liability for appeals balance of \$30.8 million and \$30.8 million as of September 30, 2017 and December 31, 2016, respectively, includes \$2.2 million and \$2.4 million of commercial customers claim findings which have been adjudicated in favor of providers and the Company's estimate of the potential amount of commercial customers repayments that are probable of being adjudicated in favor of providers following a successful appeal.

A summary of the activity in the estimated liability for appeals related to the Company's Medicare RAC contract was as follows (*in thousands*) :

	September 30, 2017
Balance--beginning of period	\$ 11,126
Provision	83
Appeals found in providers favor	(1,443)
Balance--end of period	\$ 9,766

8. Credit Agreement

During the nine months ended September 30, 2017, no principal payments were made against the Company's revolving credit facility. The \$240.0 million principal balance of the revolving credit facility is due in May 2018.

The Credit Agreement provides for an initial \$500 million revolving credit facility, and, under specified circumstances, the revolving credit facility can be increased or one or more incremental term loan facilities can be added, provided that the incremental credit facilities do not exceed in the aggregate the sum of (a) \$75 million plus (b) an additional amount not less than \$25 million, so long as the total secured leverage ratio, calculated giving pro forma effect to the requested incremental borrowing and other customary and appropriate pro forma adjustment events, including any permitted acquisitions, is no greater than 2.5:1.0. The Company's obligations and any amounts due under the Credit Agreement are guaranteed by the Company's material 100% owned subsidiaries and secured by a security interest in all or substantially all of the Company's and the Company's subsidiaries' physical assets.

The Credit Agreement requires the Company to comply with certain financial and other covenants, including a maximum consolidated leverage ratio of 3.25:1.00 and a minimum interest coverage ratio of 3.00:1.00.

The interest rates applicable to the revolving credit facility are, at the Company's option, either:

- a) the LIBOR multiplied by the statutory reserve rate plus an interest margin ranging from 1.50% to 2.25% based on the Company's consolidated leverage ratio, or
- b) a base rate (which is equal to the greatest of (i) Citibank's prime rate, (ii) the federal funds effective rate plus 0.50% and (iii) the one-month LIBOR plus 1.00% plus an interest margin ranging from 0.50% to 1.25% based on the Company's consolidated leverage ratio).

HMS pays an unused commitment fee on the revolving credit facility during the term of the Credit Agreement ranging from 0.375% to 0.50% per annum based on the consolidated leverage ratio.

Interest expense and the commitment fees on the unused portion of the Company's revolving credit facility were as follows (*in thousands*):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Interest expense	\$ 2,230	\$ 1,204	\$ 5,072	\$ 3,572
Commitment fees	\$ 325	\$ 382	\$ 1,036	\$ 1,138

As of September 30, 2017 and December 31, 2016, the unamortized balance of deferred origination fees and debt issuance costs were \$1.2 million and \$2.8 million, respectively. For both the three month periods ended September 30, 2017 and 2016, HMS amortized \$0.5 million of interest expense related to the Company's deferred origination fees and debt issuance costs. For both the nine months ended September 30, 2017 and 2016, HMS amortized \$1.5 million of interest expense related to the Company's deferred origination and debt issue costs.

Although HMS expects that operating cash flows will continue to be a primary source of liquidity for the Company's operating needs, the revolving credit facility may be used for general corporate purposes, including, but not limited to acquisitions, if necessary.

HMS has an outstanding irrevocable letter of credit for \$3.0 million, expiring on April 26, 2018.

The Company's revolving credit facility is due within one year. Although the Company has no committed financing or refinancing in place as of September 30, 2017, the Company has successfully obtained financing or refinanced its debt in the past, and the Company is currently engaged in ongoing discussions with potential and existing lenders to extend or refinance the credit facility. The Company is not aware of any conditions or events that indicate that the Company may not be able to obtain additional financing or will not be able to refinance its existing debt. However, the terms and availability of such financing may be impacted by economic and financial market conditions as well as the Company's financial condition and results of operations at the time the Company seeks to obtain such financing.

As of September 30, 2017, the Company was in compliance with all of the terms of the Credit Agreement.

9. Earnings Per Share

Basic income per share is calculated by dividing net income by the weighted average number of common shares outstanding during the period. Diluted income per share is calculated by dividing net income by the weighted average number of common shares and dilutive common share equivalents outstanding during the period. The Company's dilutive common share equivalents consist of stock options and restricted stock units.

The following table reconciles the basic to diluted weighted average common shares outstanding using the treasury stock method (*in thousands, except per share amounts*) :

	Three Months Ended September 30,	
	2017	2016
Net income	\$ 6,372	\$ 14,046
Weighted average common shares outstanding-basic	83,923	84,101
Plus: net effect of dilutive stock options and restricted stock units	1,807	752
Weighted average common shares outstanding-diluted	85,730	84,853
Net income per common share-basic	\$ 0.08	\$ 0.17
Net income per common share-diluted	\$ 0.07	\$ 0.17

For the three months ended September 30, 2017 and 2016, 2,642,548 and 1,801,989 stock options, respectively, were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive. For the three months ended September 30, 2017 and 2016, restricted stock units representing 84,630 and 35,738 shares of common stock, respectively, were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive.

	Nine Months Ended September 30,	
	2017	2016
Net income	\$ 14,331	\$ 28,486
Weighted average common shares outstanding-basic	83,778	84,338
Plus: net effect of dilutive stock options and restricted stock units	1,808	1,655
Weighted average common shares outstanding-diluted	85,586	85,993
Net income per common share-basic	\$ 0.17	\$ 0.34
Net income per common share-diluted	\$ 0.17	\$ 0.33

For the nine months ended September 30, 2017 and 2016, 2,132,017 and 2,577,286 stock options, respectively, were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive. For the nine months ended September 30, 2017 and 2016, restricted stock units representing 63,452 and 25,036 shares of common stock, respectively, were not included in the diluted earnings per share calculation because the effect would have been anti-dilutive.

10. Stock-Based Compensation

(a) Stock-Based Compensation Expense

Total stock-based compensation expense in the Company's consolidated statements of income related to the Company's long-term incentive award plans was as follows (in thousands) :

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Cost of services-compensation	\$ 1,851	\$ 399	\$ 5,353	\$ 3,540
Selling, general and administrative	5,531	1,703	11,408	7,207
Total	\$ 7,382	\$ 2,102	\$ 16,761	\$ 10,747

(b) Stock Options

For the three months ended September 30, 2017 and 2016, stock-based compensation expense related to stock options was approximately \$3.2 million and \$1.2 million, respectively. For the nine months ended September 30, 2017 and 2016, stock-based compensation expense related to stock options was approximately \$7.1 million and \$5.3 million, respectively.

Presented below is a summary of stock option activity for the nine months ended September 30, 2017 (in thousands except for weighted average exercise price and weighted average remaining contractual terms):

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms	Aggregate Intrinsic Value
Outstanding balance at December 31, 2016	5,191	\$ 17.35		
Granted	984	18.95		
Exercised	(174)	16.09		
Forfeitures	(129)	16.04		
Expired	(159)	22.99		
Outstanding balance at September 30, 2017	5,713	17.50	5.25	\$ 18,601
Expected to vest at September 30, 2017	1,993	16.06	6.39	7,885
Exercisable at September 30, 2017	2,755	\$ 18.85	3.88	\$ 7,352

During the three months ended September 30, 2017 and 2016, the Company issued 40,734 and 211,774 shares, respectively, of the Company's common stock upon the exercise of outstanding stock options and received proceeds of \$0.8 million and \$2.4 million, respectively. The total intrinsic value of stock options exercised during the three months ended September 30, 2017 and 2016 was \$0.3 million and \$2.2 million, respectively. During the nine months ended September 30, 2017 and 2016, the Company issued 173,539 and 510,466 shares, respectively, of the Company's common stock upon the exercise of outstanding stock options and received proceeds of \$2.7 million and \$3.6 million, respectively. The total intrinsic value of stock options exercised during the nine months ended September 30, 2017 and 2016 was \$0.6 million and \$6.3 million, respectively.

As of September 30, 2017, there was approximately \$11.9 million of total unrecognized compensation cost related to stock options outstanding, which is expected to be recognized over a weighted average period of 1.9 years.

Excess tax benefit/(deficiency) from the exercise of stock options for the three months ended September 30, 2017 and 2016 was a deficiency of \$0.3 million and a benefit of \$0.5 million, respectively. Excess tax benefit/(deficiency) for the nine months ended September 30, 2017 and 2016 was a deficiency of \$0.2 million and a benefit of \$1.9 million, respectively.

The weighted-average grant date fair value per share of the stock options granted during the nine months ended September 30, 2017 and 2016 was \$7.68 and \$5.49, respectively. HMS estimated the fair value of each stock option grant on the date of grant using a Black Scholes option pricing model and weighted-average assumptions set forth in the following table:

	Nine Months Ended September 30,	
	2017	2016
Expected dividend yield	—	—
Risk-free interest rate	1.74%	1.20%
Expected volatility	44.19%	43.91%
Expected life (years)	5.00	4.90

(c) Restricted Stock Units

For the three months ended September 30, 2017 and 2016 stock-based compensation expense related to restricted stock units was \$4.2 million and \$0.9 million, respectively. For the nine months ended September 30, 2017 and 2016 stock-based compensation expense related to restricted stock units was \$9.7 million and \$5.4 million, respectively.

Presented below is a summary of restricted stock units activity for the nine months ended September 30, 2017 *(in thousands, except for weighted average grant date fair value per unit)*:

	Number of Units	Weighted Average Grant Date Fair Value per Unit
Outstanding balance at December 31, 2016	1,413	\$ 16.44
Granted	599	18.90
Vesting of restricted stock units, net of units withheld for taxes	(363)	16.45
Units withheld for taxes	(155)	16.45
Forfeitures	(47)	17.16
Outstanding balance at September 30, 2017	1,447	\$ 17.57

For the three months ended September 30, 2017 and 2016, HMS granted 59,784 and 8,603 restricted stock units, respectively, with an aggregate fair market value of \$1.0 million and \$0.2 million, respectively. For the nine months ended September 30, 2017 and 2016, HMS granted 599,441 and 598,531 restricted stock units, respectively, with an aggregate fair market value of \$11.3 million and \$8.4 million, respectively.

As of September 30, 2017, 1,269,271 restricted stock units remained unvested and there was approximately \$14.2 million of unrecognized compensation cost related to restricted stock units, which is expected to be recognized over a weighted average vesting period of 1.5 years.

11. Commitments and Contingencies

Dennis Demetre and Lori Lewis: In July 2012, Dennis Demetre and Lori Lewis (the “Plaintiffs”), filed an action in the Supreme Court of the State of New York against HMS Holdings Corp., claiming an undetermined amount of damages alleging that various actions by HMS unlawfully deprived the Plaintiffs of the acquisition earn-out portion of the purchase price for Allied Management Group Special Investigation Unit (“AMG”) under the applicable Stock Purchase Agreement (the “SPA”) and that HMS had breached certain contractual provisions under the SPA. The Plaintiffs filed a second amended complaint with two causes of action for breach of contract and one cause of action for breach of implied covenant of good faith and fair dealing. HMS asserted a counterclaim against Plaintiffs for breach of contract based on contractual indemnification costs, including attorneys’ fees arising out of the Company’s defense of AMG in *Kern Health Systems v. AMG, Dennis Demetre and Lori Lewis* (the “California Action”), which are recoverable under the SPA. Mediation took place in September 2014 but the matter was not resolved. In June 2016, Kern Health Systems and AMG entered into a settlement agreement that resolved all claims in the California Action.

In January 2016, HMS moved for partial summary judgment. On July 21, 2017, the Court granted the motion in part, dismissing one of Plaintiffs' breach of contract causes of action against HMS. On November 3, 2017, following a jury trial, a verdict was returned in favor of the Plaintiffs on a breach of contract claim and the jury awarded \$60 million in damages to the Plaintiffs. The Company intends to appeal the verdict and believes that strong grounds exist to overturn or greatly reduce the damages awarded by the jury. In light of the Company's belief that the jury award was unsupportable as a matter of law, the Company has not recorded a reserve for this pending litigation. HMS will continue to monitor developments in assessing the probability and measurability of any related loss contingency.

From time to time, HMS may be subject to investigations, legal proceedings and other disputes arising in the ordinary course of the Company's business, including but not limited to regulatory audits, billing and contractual disputes, employment-related matters and post-closing disputes related to acquisitions. Due to the Company's contractual relationships, including those with federal and state government entities, HMS's operations, billing and business practices are subject to scrutiny and audit by those entities and other multiple agencies and levels of government, as well as to frequent transitions and changes in the personnel responsible for oversight of the Company's contractual performance. HMS may have contractual disputes with its customers arising from differing interpretations of contractual provisions that define the Company's rights, obligations, scope of work or terms of payment, and with associated claims of liability for inaccurate or improper billing for reimbursement of contract fees, or for sanctions or damages for alleged performance deficiencies. Resolution of such disputes may involve litigation or may require that HMS accept some amount of loss or liability in order to avoid customer abrasion, negative marketplace perceptions and other disadvantageous results that could affect the Company's business, financial condition, results of operations and cash flows.

HMS records accruals for outstanding legal matters when it believes it is probable that a loss will be incurred and the amount can be reasonably estimated. The Company evaluates, on a quarterly basis, developments in legal matters that could affect the amount of any accrual and developments that would make a loss contingency both probable and reasonably estimable. If a loss contingency is not both probable and estimable, HMS does not establish an accrued liability.

12. Subsequent Events

On November 1, 2017, the Board of Directors of the Company approved a share repurchase program authorizing the Company to repurchase up to \$50.0 million in shares of its common stock from time to time on the open market or in privately negotiated or other transactions. The repurchase program is authorized for a period of up to two years, and may be suspended or discontinued at any time. Repurchased shares will be available for use in connection with reissuance under the Company's stock plans and for other corporate purposes. The timing and amount of any shares repurchased under the program will be determined by the Company's management based on its evaluation of market conditions, share price and other factors. In order to facilitate repurchases, the Company may enter into a Rule 10b5-1 plan from time to time, which would permit shares to be repurchased when the Company might otherwise be precluded from doing so under insider trading laws or because of a self-imposed trading blackout period.

In connection with the preparation of these unaudited consolidated financial statements, an evaluation of subsequent events was performed through the date of filing and there were no other events that have occurred that would require adjustments to the financial statements or disclosure.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis should be read in conjunction with the other sections of this Quarterly Report on Form 10-Q, including the unaudited consolidated financial statements, related notes and other financial information appearing elsewhere in this Quarterly Report, and with our 2016 Form 10-K.

Business Overview

HMS is a leading provider of cost containment solutions in the U.S. healthcare marketplace. Using innovative technology as well as extensive data services and powerful analytics, the Company delivers coordination of benefits, payment integrity, and health management and member engagement solutions through its operating subsidiaries to help at-risk healthcare organizations recover improper payments; prevent future improper payments; reduce fraud, waste and abuse; better manage the care their members receive; and ensure regulatory compliance. HMS is managed and operates as one business segment, with a single management team reporting to the Chief Executive Officer. The Company serves commercial health plans, state government agencies, federal programs, at-risk providers, pharmacy benefit managers and employers. As of September 30, 2017, the Company:

- Serves over 40 state Medicaid programs and the District of Columbia, CMS and the VHA;
- Provides services to over 300 health plans in support of their multiple lines of business, including Medicaid managed care, Medicare Advantage and group and individual health and both at-risk and ASO; and
- Serves as a sub-contractor for certain business outsourcing and technology firms.

Critical Accounting Policies

Since the date of our 2016 Form 10-K, there have been no material changes to our critical accounting policies. Refer to the items disclosed as our Critical Accounting Policies in Part II, Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 1 – "Business and Summary of Significant Accounting Policies" in our notes to the audited consolidated financial statements under Part II, Item 8 of our 2016 Form 10-K.

SUMMARY OF OPERATING RESULTS

Selected Operating Performance and Other Significant Items for the Three and Nine Months Ended September 30, 2017

Three Months Ended September 30, 2017

- Revenue increased \$2.8 million, or 2.3% from the same quarter in 2016
- Operating income increased \$0.2 million, or 1.6% from the same quarter in 2016
- Net income decreased \$7.6 million, or 54.3% from the same quarter in 2016
- Diluted earnings per share decreased \$0.10 or 58.8% from the same quarter in 2016
- Shareholders' equity at September 30, 2017 increased \$14.3 million from June 30, 2017
- Third quarter 2017 cash flow from operations was \$34.4 million

Nine Months Ended September 30, 2017

- Revenue increased \$8.6 million, or 2.4% from the first nine months of 2016
- Operating income decreased \$7.8 million, or 20.1% from the first nine months of 2016
- Net income decreased \$14.2 million, or 49.8% from the first nine months of 2016
- Diluted earnings per share decreased \$0.16 or 48.5% from the first nine months of 2016
- Shareholders' equity increased \$30.8 million since December 31, 2016
- Cash flow from operations for the first nine months of 2017 was \$55.1 million

[Comparison of Three and Nine Months Ended September 30, 2017 to September 30, 2016](#)

The following table sets forth, for the periods indicated, certain items in our unaudited consolidated statements of income expressed as a percentage of revenue:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenue	100%	100%	100%	100%
Cost of services:				
Compensation	39.0	39.3	40.2	39.0
Data processing	9.6	7.7	8.9	7.8
Occupancy	3.4	2.8	3.2	2.9
Direct project expenses	7.6	9.0	8.1	10.1
Other operating expenses	5.9	6.9	5.7	5.7
Amortization of acquisition related software and intangible assets	6.5	5.2	5.8	5.6
Total cost of services	72.0	70.9	71.9	71.1
Selling, general and administrative expenses	17.7	18.8	19.7	18.2
Total operating expenses	89.7	89.7	91.6	89.3
Operating income	10.3	10.3	8.4	10.7
Interest expense	(2.5)	(1.7)	(2.1)	(1.7)
Interest income	—	—	—	—
Income before income taxes	7.8	8.6	6.3	9.0
Income taxes	2.7	(2.8)	2.5	1.2
Net income	5.1%	11.4%	3.8%	7.8%

Revenue

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017 revenue was \$125.7 million, an increase of \$2.8 million, or 2.3% compared to prior year revenue of \$122.9 million. The primary reason for the increase in total revenue was due to growth in commercial health plan revenue of \$19.7 million as compared to prior year same quarter. This increase was largely driven by Eliza which generated \$9.9 million of revenue in the third quarter of 2017. These increases were offset by decreases in Federal, Medicare RAC and other revenue.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017 revenue was \$372.7 million, an increase of \$8.6 million or 2.4% compared to prior year revenue of \$364.1 million. The primary reason for the increase in total revenue was due to growth in commercial health plan revenue of \$24.7 million as compared to prior year same period. This increase was largely driven by Eliza which generated \$17.5 million of revenue since acquisition. These increases were partially offset by decreases in Federal, Medicare RAC and other revenue.

Total Cost of Services

Total cost of services consists of compensation, data processing, occupancy, direct project expenses, other operating expenses, and amortization of acquisition related software and intangible assets.

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, total cost of services as a percentage of revenue was 72.0% compared to 70.9% for the three months ended September 30, 2016. Total cost of services for the three months ended September 30, 2017 was \$90.6 million, an increase of \$3.5 million, compared to \$87.1 million for the three months ended September 30, 2016. This change resulted primarily from increases in compensation costs, data processing costs, occupancy and amortization of intangible assets. These increases were partially offset by decreases in direct project expenses and other operating expenses.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, total cost of services as a percentage of revenue was 71.9% compared to 71.1% for the nine months ended September 30, 2016. Total cost of services for the nine months ended September 30, 2017 was \$268.2 million, an increase of \$9.2 million, compared to \$259.0 million for the nine months ended September 30, 2016. This change resulted primarily from increases in compensation costs, data processing costs, occupancy, other operating expenses and amortization of intangible assets. These increases were partially offset by decreases in direct project expenses.

Compensation

Compensation expense is primarily composed of salaries and wages, which include overtime, health benefits, stock option expense, performance awards, commissions, employers' share of FICA and fringe benefits.

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, compensation expense as a percentage of revenue was 39.0% compared to 39.3% for the three months ended September 30, 2016. Compensation expense for the three months ended September 30, 2017 was \$49.0 million, an increase of \$0.7 million, compared to \$48.3 million for the three months ended September 30, 2016. This increase resulted primarily from an increase in salaries due to compensation for additional personnel in connection with the Eliza acquisition and increases in stock compensation expense, partially offset by a decrease in fringe benefits and variable compensation.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, compensation expense as a percentage of revenue was 40.2% compared to 39.0% for the nine months ended September 30, 2016. Compensation expense for the nine months ended September 30, 2017 was \$149.8 million, an increase of \$7.8 million, compared to \$142.0 million for the nine months ended September 30, 2016. This increase resulted primarily from an increase in salaries due to compensation for additional personnel in connection with the Eliza acquisition and increases in stock compensation expense, partially offset by a decrease in fringe benefits and variable compensation.

Data Processing

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, data processing expense as a percentage of revenue was 9.6% compared to 7.7% for the three months ended September 30, 2016. Data processing expense for the three months ended September 30, 2017 was \$12.1 million, an increase of \$2.6 million, compared to \$9.5 million for the three months ended September 30, 2016. This change resulted primarily from a \$2.1 million increase in equipment expense and software costs.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, data processing expense as a percentage of revenue was 8.9% compared to 7.8% for the nine months ended September 30, 2016. Data processing expense for the nine months ended September 30, 2017 was \$33.1 million, an increase of \$4.8 million, compared to \$28.3 million for the nine months ended September 30, 2016. This change resulted primarily from a \$4.7 million increase in equipment expense and software costs.

Occupancy

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, occupancy expense as a percentage of revenue was 3.4% compared to 2.8% for the three months ended September 30, 2016. Occupancy expense was \$4.3 million, an increase of \$0.9 million, compared to \$3.4 million for the three months ended September 30, 2016. This increase was primarily a result of the acquisition of Eliza.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, occupancy expense as a percentage of revenue was 3.2% compared to 2.9% for the nine months ended September 30, 2016. Occupancy expense was \$12.1 million, an increase of \$1.5 million, compared to \$10.6 million for the nine months ended September 30, 2016. This increase was primarily a result of the acquisition of Eliza.

Direct Project Expenses

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, direct project expense as a percentage of revenue was 7.6% compared to 9.0% for the three months ended September 30, 2016. Direct project expenses were \$9.5 million for the three months ended September 30, 2017, a decrease of \$1.5 million, compared to \$11.0 million for the three months ended September 30, 2016. The decrease was primarily due to a \$1.3 million reduction in expenses related to our contracts with CMS.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, direct project expense as a percentage of revenue was 8.1% compared to 10.1% for the nine months ended September 30, 2016. Direct project expenses were \$30.1 million, a decrease of \$6.9 million compared to \$37.0 million for the nine months ended September 30, 2016. This decrease was primarily due to an \$8.5 million reduction in expenses related to our contracts with CMS, partially offset by increases related to new initiatives.

Other Operating Expenses

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, other operating expenses as a percentage of revenue was 5.9% compared to 6.9% for the three months ended September 30, 2016. Other operating expenses for the three months ended September 30, 2017 were \$7.4 million, a decrease of \$1.1 million, compared to \$8.5 million for the three months ended September 30, 2016. This decrease primarily resulted from a \$2.6 million decrease in temporary staffing expenses offset by a \$1.5 million increase in sub-contractor fees.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, other operating expenses as a percentage of revenue was 5.7% compared to 5.7% for the nine months ended September 30, 2016. Other operating expenses for the nine months ended September 30, 2017 were \$21.2 million, an increase of \$0.6 million, compared to \$20.6 million for the nine months ended September 30, 2016. This increase primarily resulted from a \$7.5 million increase in sub-contractor fees, consulting fees and travel and entertainment expenses. These increases were offset by a \$8.2 million decrease in temporary staffing and office related expenses.

Amortization of Acquisition Related Software and Intangible Assets

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, amortization of acquisition related software and intangibles as a percentage of revenue was 6.5% compared to 5.2% for the three months ended September 30, 2016. Amortization of acquisition related software and intangible assets for the three months ended September 30, 2017 was \$8.2 million, an increase of \$1.8 million, compared to \$6.4 million for the three months ended September 30, 2016. This increase related to the addition of certain intangibles as a result of the Eliza acquisition.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, amortization of acquisition related software and intangibles as a percentage of revenue was 5.8% compared to 5.6% for the nine months ended September 30, 2016. Amortization of acquisition related software and intangible assets for the nine months ended September 30, 2017 was \$21.8 million, an increase of \$1.4 million, compared to \$20.4 million for the nine months ended September 30, 2016. This increase related to the addition of intangibles in connection with the Eliza acquisition.

Selling, General and Administrative expenses**Three Months Ended September 30, 2017 vs. 2016**

During the three months ended September 30, 2017, SG&A expenses as a percentage of revenue was 17.7% compared to 18.8% for the three months ended September 30, 2016. SG&A expenses for the three months ended September 30, 2017 were \$22.2 million, a decrease of \$0.9 million, compared to \$23.1 million for the three months ended September 30, 2016. This decrease was comprised primarily of decreases in legal and other operating expenses partially offset by increases in compensation for the additional personnel in connection with the Eliza acquisition.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, SG&A expenses as a percentage of revenue was 19.7% compared to 18.2% for the nine months ended September 30, 2016. SG&A expenses for the nine months ended September 30, 2017 were \$73.4 million, an increase of \$7.2 million, compared to \$66.2 million for the nine months ended September 30, 2016. This increase was comprised primarily of increases in compensation for the additional personnel in connection with the Eliza acquisition and consulting fees, partially offset by a reduction in other operating expenses.

Operating Income**Three Months Ended September 30, 2017 vs. 2016**

Operating income for the three months ended September 30, 2017, was \$12.9 million, an increase of \$0.2 million, or 1.6% compared to operating income of \$12.7 million for the three months ended September 30, 2016.

Nine Months Ended September 30, 2017 vs. 2016

Operating income for the nine months ended September 30, 2017, was \$31.2 million, a decrease of \$7.7 million, or 19.8% compared to operating income of \$38.9 million for the nine months ended September 30, 2016.

Interest Expense

Interest expense represents interest on borrowings under our revolving credit facility, amortization of deferred financing costs, commitment fees for our revolving credit facility and issuance fees for our letter of credit.

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, interest expense was \$3.1 million, an increase of \$1.0 million, compared to \$2.1 million for the same period in the prior year. This increase resulted primarily from an increase in the principal amount on our outstanding debt. Amortization of deferred financing costs of \$0.5 million in both periods is included within interest expense.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, interest expense was \$7.7 million, an increase of \$1.4 million, compared to \$6.3 million for the same period in the prior year. This increase resulted primarily from an increase in the principal amount on our outstanding debt. Amortization of deferred financing costs of \$1.6 million in both periods is included within interest expense.

Income Taxes**Three Months Ended September 30, 2017 vs. 2016**

During the three months ended September 30, 2017, we recorded income tax expense of \$3.4 million, an increase of \$6.8 million, compared to income tax benefit of (\$3.4) million for the three months ended September 30, 2016. Our effective tax rate increased to 34.8% for the three months ended September 30, 2017 compared to (32.1%) for the three months ended September 30, 2016, primarily due to the Company's recognition of tax benefits in the third quarter of 2016 for the research and development tax credits and the U.S. production activities deduction for all open tax years at that time. The differences between the federal statutory rate and our effective tax rate are state taxes, acquisition related costs and deferred adjustments, equity compensation impacts, unrecognized tax benefits and permanent differences including the U.S. production activities deduction and research and development tax credits.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, we recorded income tax expense of \$9.3 million, an increase of \$5.0 million, compared to income tax expense of \$4.3 million for the nine months ended September 30, 2016. Our effective tax rate increased to 39.4% for the nine months ended September 30, 2017 compared to 13.2% for the nine months ended September 30, 2016 primarily due to the Company's recognition of tax benefits in the third quarter of 2016 for the Research and Development tax credits and the U.S. production activities deduction for all open tax years at that time. The differences between the federal statutory rate and our effective tax rate are state taxes, acquisition related costs and deferred adjustments, equity compensation impacts, unrecognized tax benefits and permanent differences including the U.S. production activities deduction and research and development tax credits.

Net Income

Three Months Ended September 30, 2017 vs. 2016

During the three months ended September 30, 2017, net income was \$6.4 million which represents a \$7.6 million decrease compared to net income of \$14.0 million for the same period in 2016.

Nine Months Ended September 30, 2017 vs. 2016

During the nine months ended September 30, 2017, net income was \$14.3 million which represents a \$14.2 million decrease compared to net income of \$28.5 million for the same period in 2016.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as of September 30, 2017.

Liquidity and Capital Resources

The following tables should be read in conjunction with the unaudited consolidated financial statements and related notes included in this Quarterly Report on Form 10-Q.

Our cash and cash equivalents, working capital and available borrowings under our credit facility (based upon the borrowing base and financial covenants in our Credit Agreement) were as follows (*in thousands*) :

	September 30, 2017	December 31, 2016
Cash and cash equivalents	\$ 79,484	\$ 175,999
Working capital	\$ (38,084)	\$ 277,478
Available borrowings under credit facility	\$ 139,356	\$ 183,913

Our cash flows were as follows (*in thousands*) :

	Nine Months Ended September 30,	
	2017	2016
Net cash provided by operating activities	\$ 55,098	\$ 56,222
Net cash used in investing activities	(193,494)	(32,120)
Net cash provided by financing activities	41,881	1,807
Net (decrease) / increase in cash and cash equivalents	\$ (96,515)	\$ 25,909

Our cash and cash equivalents and available borrowings under our revolving credit facility were lower as of September 30, 2017 as compared to December 31, 2016, primarily as a result of our acquisition of Eliza on April 17, 2017. Our working capital was lower as of September 30, 2017 as compared to December 31, 2016, primarily due to the Eliza acquisition, as well as the classification of amounts outstanding under our revolving credit facility as a current liability at September 30, 2017. Our revolving credit facility matures in May 2018, and consequently, amounts outstanding under the facility are classified as a current liability at September 30, 2017 because such amounts are due within one year.

Our principal source of cash has been our cash flow from operations and our revolving credit facility. Other sources of cash include proceeds from exercise of stock options and tax benefits associated with stock option exercises. The primary uses of cash are capital investments, compensation expenses, data processing, direct project costs, SG&A expenses and acquisitions. We believe that expected cash flows from operations, available cash and cash equivalents, and funds available under our revolving credit facility will be sufficient to meet our liquidity requirements until our revolving credit facility matures in May 2018. Our liquidity requirements include:

- the working capital requirements of our operations;
- investments in our business;
- business development activities;
- repurchases of common stock; and
- repayment of our revolving credit facility.

Any projections of future earnings and cash flows are subject to substantial uncertainty. In addition, we may need to access debt and equity markets in the future if unforeseen costs or opportunities arise. During the second quarter of 2017, we commenced plans to extend or refinance our revolving credit facility, and we are currently engaged in ongoing discussions with potential and existing lenders regarding these plans. We believe it is probable that we will be able to extend or refinance the facility prior to maturity; however, the terms and availability of such financing or any other proposed financing may be impacted by economic and financial market conditions as well as our financial condition and results of operations at the time we seek to obtain such financing.

Cash Flows from Operating Activities

Net cash provided by operating activities for the nine months ended September 30, 2017 was \$55.1 million, a decrease of \$1.1 million as compared to net cash provided by operating activities of \$56.2 million for the nine months ended September 30, 2016. This decrease was primarily attributable to decreases in net income and a decrease in collections of accounts receivable, partially offset by increases in accounts payable and income taxes payable.

Cash Flows from Investing Activities

Net cash used in investing activities for the nine months ended September 30, 2017 was \$193.5 million, a \$161.4 million increase compared to net cash used in investing activities of \$32.1 million for the nine months ended September 30, 2016. The increase primarily related to the acquisition of Eliza as well as an increase in purchases of property and equipment and investment in capitalized software.

Cash Flows from Financing Activities

Net cash provided by financing activities for the nine months ended September 30, 2017 was \$41.9 million, a \$40.1 million increase compared to net cash provided by financing activities of \$1.8 million for the nine months ended September 30, 2016. This increase was primarily related to proceeds from our revolving credit facility partially offset by payment of tax withholdings on behalf of employees for net-share settlement for stock-based compensation.

Contractual Obligations

There have been no material changes outside the ordinary course of business in our contractual obligations as presented in our 2016 Form 10-K.

Recently Issued Accounting Pronouncements

See “Recently Issued Accounting Pronouncements” in Note 1 of the unaudited consolidated financial statements.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes to the market risks discussed in Item 7A to Part II of our 2016 Form 10-K.

Item 4. Controls and Procedures

We are responsible for maintaining disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) that are designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by Rule 13a-15(b) under the Exchange Act, management, with the participation of our Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of our disclosure controls and procedures as of September 30, 2017. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective because the material weaknesses discussed below continue to exist as of September 30, 2017.

During the quarter ended December 31, 2016, management identified material weaknesses in our internal control over financial reporting related to (i) the calculation our estimated liability for appeals associated with our contract with CMS (the “CMS Reserve”) and (ii) the valuation of our accounts receivable allowance (the “Allowance”). As described in Management’s Report on Internal Control Over Financial Reporting in Item 9A of our 2016 Form 10-K, management determined that we did not maintain an effective control environment based on lack of established reporting lines and defined authorities and responsibilities for financial reporting at our wholly owned subsidiary, HDI, and that we did not have an effective risk assessment process on a periodic basis to assess the effects of changes in business operations and turnover of our employees that significantly impact our financial processes and internal control over financial reporting related to the CMS Reserve and the Allowance. As a result, we did not design and implement effective process level control activities, specifically management review controls over the measurement and disclosure of the CMS Reserve and the Allowance and controls over the completeness and accuracy of data used to calculate the CMS Reserve and the Allowance.

During the first half of 2017, management took steps to revise and supplement the design of our controls around the CMS Reserve and the Allowance in order to remediate the material weaknesses. We implemented changes to improve our controls and enhance our internal control environment, which include refining the calculations and redesigning the review controls over the completeness and accuracy of data used to determine the CMS Reserve and the Allowance. We believe we are making progress toward achieving the effectiveness of our disclosure controls, and that the enhanced calculations and review procedures we have implemented are sufficient to remediate the material weaknesses; however, management will not be able to conclude that the material weaknesses are fully remediated until we have completed additional testing and subsequent evaluation of the applicable controls effectiveness, which we expect to be completed by the end of the next quarter. We will continue to test the ongoing design and operating effectiveness of our revised controls until we can provide reasonable assurance that we have implemented measures that remediate the control weaknesses identified.

Except as noted above, there have been no changes in the Company's internal control over financial reporting as of September 30, 2017, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

The information set forth under the caption “Commitments and Contingencies” in Note 11 of the notes to the unaudited consolidated financial statements of this Quarterly Report on Form 10-Q is incorporated herein by reference.

Item 1A. Risk Factors

In addition to the information set forth in this Quarterly Report on Form 10-Q, the risks that are discussed in the 2016 Form 10-K, under the headings “Part I, Item 1. Business,” “Part I, Item 1A. Risk Factors” and “Part II, Item 7A. Quantitative and Qualitative Disclosures About Market Risk,” should be carefully considered as such risks could materially affect the Company’s business, financial conditions or future results. There has been no material change in the Company’s risk factors from those described in the 2016 Form 10-K.

These risks are not the only risks facing the Company. Additional risks and uncertainties not currently known to the Company or that it currently deems to be immaterial also may have a material adverse effect on the Company’s business, financial condition or future results.

Item 5. Other Information

The Board of Directors has set the date of our 2018 Annual Meeting of Shareholders (the “2018 Annual Meeting”) as May 23, 2018. The date of the 2018 Annual Meeting is more than 30 days earlier in the year than the date of our previous annual meeting of shareholders, which affects the deadline for receipt of shareholder proposals intended to be included in our proxy materials for the 2018 Annual Meeting pursuant to Rule 14a-8 under the Exchange Act (“Rule 14a-8”).

Shareholders of the Company who wish to have a proposal considered for inclusion in the Company’s proxy materials for the 2018 Annual Meeting pursuant to Rule 14a-8 must ensure that such proposal is received in writing at our principal executive offices located at 5615 High Point Drive, Irving, Texas 75038, Attention: Meredith W. Bjorck, no later than December 14, 2017, which we have determined to be a reasonable time consistent with the deadline that typically applies under Rule 14a-8. Any such proposal must also comply with the requirements of Rule 14a-8 to be eligible for inclusion in our proxy materials.

With regard to any proposal by a shareholder not seeking to have such proposal included in the Company’s proxy materials, but seeking to have such proposal considered at the 2018 Annual Meeting or seeking to nominate a candidate for director at the 2018 Annual Meeting, the deadline for timely notice as set forth on page 8 of our proxy statement for our 2017 Annual Meeting of Shareholders has changed since, pursuant to our Bylaws, the date of our 2018 Annual Meeting has been advanced by more than 20 calendar days from the first anniversary of the preceding year’s annual meeting. In order for such proposal/nomination to be considered timely, it must be received in writing by the Corporate Secretary at our principal executive office not earlier than January 23, 2018 and no later than the close of business on February 22, 2018. Any such proposal must comply in all respects with (i) the rules and regulations of the SEC, (ii) the provisions of our Certificate of Incorporation and our Amended and Restated Bylaws and (iii) applicable Delaware law.

Item 6. Exhibits

Exhibit Number	Description
3.1	Conformed copy of Certificate of Incorporation of the Company, as amended through July 9, 2015 (incorporated by reference to Exhibit 3.1 to Company's Quarterly Report on Form 10-Q (File No. 000-50194) as filed with the SEC on August 10, 2015)
3.2	Amended and Restated Bylaws of the Company dated May 4, 2016 (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 000- 50194) as filed with the SEC on May 5, 2016)
31.1	Rule 13a-14(a)/15d-14(a) Certification of the Principal Executive Officer of HMS Holdings Corp., as adopted pursuant to Section 302 of the Sarbanes- Oxley Act of 2002
31.2	Rule 13a-14(a)/15d-14(a) Certification of the Principal Financial Officer of HMS Holdings Corp., as adopted pursuant to Section 302 of the Sarbanes- Oxley Act of 2002
32.1	Section 1350 Certification of the Principal Executive Officer of HMS Holdings Corp., as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 *
32.2	Section 1350 Certification of the Principal Financial Officer of HMS Holdings Corp., as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 *
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

* The certifications attached hereto as Exhibit 32.1 and Exhibit 32.2 are furnished with this Quarterly Report on Form 10-Q and shall not be deemed "filed" by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Date: November 8, 2017

HMS HOLDINGS CORP.

By: /s/ WILLIAM C. LUCIA
William C. Lucia
President and Chief Executive Officer and Duly
Authorized Officer
(Principal Executive Officer)

By: /s/ JEFFREY S. SHERMAN
Jeffrey S. Sherman
Executive Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer)

HMS Holdings Corp. and Subsidiaries
Exhibit Index

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* The certifications attached hereto as Exhibit 32.1 and Exhibit 32.2 are furnished with this Quarterly Report on Form 10-Q and shall not be deemed "filed" by the Company for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

Certification

I, William C. Lucia, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of HMS Holdings Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 8, 2017

/s/ WILLIAM C. LUCIA

William C. Lucia
Chief Executive Officer
(Principal Executive Officer)

Certification

I, Jeffrey S. Sherman, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of HMS Holdings Corp.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 8, 2017

/s/ JEFFREY S. SHERMAN
Jeffrey S. Sherman
Chief Financial Officer
(Principal Financial Officer)

Certification Pursuant To 18 U.S.C. Section 1350 As Adopted Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of HMS Holdings Corp. (the “ *Company* ”) on Form 10-Q for the period ended September 30, 2017 as filed with the Securities and Exchange Commission (the “ *Report* ”), I, William C. Lucia, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ WILLIAM C. LUCIA

William C. Lucia
Chief Executive Officer
(Principal Executive Officer)

November 8, 2017

Certification Pursuant To 18 U.S.C. Section 1350 As Adopted Pursuant To Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Quarterly Report of HMS Holdings Corp. (the “ *Company* ”) on Form 10-Q for the period ended September 30, 2017 as filed with the Securities and Exchange Commission (the “ *Report* ”), I, Jeffrey S. Sherman, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ JEFFREY S. SHERMAN
Jeffrey S. Sherman
Chief Financial Officer
(Principal Financial Officer)

November 8, 2017