

HIMSS 2017 Nursing Informatics Workforce Survey

HIMSS has surveyed the nursing informatics community every three years since 2004 to understand the roles and responsibilities of the informatics nurse professional.

Nursing informatics (NI) is the specialty that integrates nursing science with multiple information and analytical sciences to identify, define, manage, and communicate data, information, knowledge, and wisdom in nursing practice. NI supports nurses, consumers, patients, the interprofessional healthcare team, and other stakeholders in their decision-making in all roles and settings to achieve desired outcomes. This support is accomplished through the use of information structures, information processes, and information technology¹.

This survey captures the experience and background of NI professionals while also identifying changes in the nursing informatics workforce that have occurred over the last 13 years.

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¹ *Nursing Informatics: Scope and Standards of Practice, 2nd Edition, ANA 2015*

1. Executive Summary

The HIMSS 2017 Nursing Informatics Workforce Survey, supported by the HIMSS Nursing Informatics Community, builds on previous HIMSS research from 2004, 2007, 2011, and 2014. The 2017 survey continues to suggest that nurse informaticists play a crucial role in the development, implementation, and optimization of clinical applications including nursing clinical documentation, computerized practitioner order entry (CPOE) and electronic medical/health records (EMR/EHR). Over half (57 percent) of respondents have a post-graduate degree in any field, which remains about the same as the 2014 survey. In addition, 41 percent of respondents planned to pursue additional informatics education and training and just over half (51 percent) of the nurse informaticist respondents indicated that they would be pursuing some type of certification within the next year.

The annual salary question was updated to ask for a salary range rather than an exact amount. Nearly half (46 percent) of respondents indicated a salary of over \$100,000. Compared to 2014 results, there were increases in the number of respondents in each salary range over \$100,000.

Other key findings and comparisons to previous surveys include:

Respondents: Almost two-thirds (64 percent) of all survey respondents work at either a hospital (42 percent), a multi-facility health system not otherwise described (15 percent) or at the corporate offices of a healthcare system (7 percent). Half work at a Magnet designated hospital, a 9 percentage point increase over 2014.

Nursing Background and Education: Over half (57 percent) of respondents had a post-graduate degree, which includes a Master's degree or PhD in nursing or any other field/specialty. More specifically, 24 percent of this year's respondents had a Master's degree or PhD in nursing. While this appears as a decrease from the 43 percent who indicated such in 2014, the decrease is related to an additional selection of Master's Degree in Nursing Informatics (23 percent) in this year's survey. In terms of the respondents' clinical experience at the bedside before becoming a nurse informaticist, slightly more respondents indicated more than 16 years of experience in 2017 (42 percent) compared to 2014 (41 percent). On the other hand, there was a decrease in the number of respondents reporting one to five years of clinical bedside experience from 2014 (20 percent) to 2017 (16 percent). This may suggest that even as hospitals move from the EHR implementation phase, nurses are continuing in their informatics roles.

Nursing Informatics: Training and education in informatics continues to advance. Over half (56 percent) of the respondents had some type of on-the-job informatics training, but of those, 28 percent had only on-the-job training compared to 34 percent in 2014. In addition, the percent of respondents who had obtained a post-graduate degree in nursing informatics or other informatics increased by almost 3 percentage points between the 2014 and 2017 surveys. Two-fifths (41 percent) of respondents reported that they were currently enrolled in some type of informatics education or training, either a formal degree program or a non-degree program/course.

Salary: Respondents were asked to identify their base salary (not including benefits or bonuses) as of December 1, 2016. Twenty-five (25) percent of respondents' salary ranged from \$86,000 to \$100,000 while 24 percent ranged from \$61,000 to \$85,000. Nearly half (46 percent) of respondents indicated a salary of over \$100,000. There were increases from the 2014 survey for each salary range over \$100,000.

Certification: The number of respondents with any certification increased from 48 percent in 2014 to 49 percent in 2017. Over half (51 percent) of the nursing informaticist respondents also indicated that they would be pursuing some type of certification within the next year. Survey respondents indicated that the perceived value of certification was personal satisfaction and enhancing their credibility and marketability. Certification is found to have a fairly high impact on respondents' career paths; a new ratings question was added to the 2017 survey and the average rating for the impact certification has on career was 4.96 out of seven.

Informatics Career: Over half (51 percent) of respondents had more than seven years of informatics experience. The percent with seven to ten years of experience decreased slightly from 21 percent in 2014 to 20 percent in 2017 while the percent with more than ten years of experience increased from 25 percent in 2014 to 31 percent in 2017. This could be the result of experienced nurse informaticists staying in informatics positions.

Career Satisfaction: Satisfaction of respondents' current position and their career choice in informatics was rated using a one to seven scale where one was not at all satisfied and seven was highly satisfied. Over half (58 percent) of respondents indicated that they were satisfied or highly satisfied with their current position (score of six or above). The majority of respondents (80 percent) were also satisfied or highly satisfied with their career choice in informatics. Respondents seemed to be quite satisfied with their choice of career in informatics but not as satisfied with the current position they hold.

Job Responsibilities: Approximately two-thirds (64 percent) of respondents indicated that they do not have a supervisory role and there are no individuals who report to them. This number decreased from 2014 (67 percent) meaning respondents' roles may supervise larger departments. The job responsibilities of the respondents continue to include systems implementation and utilization/optimization. While systems development is still in the top three job responsibilities, the percent currently working in this area decreased from 38 percent in 2014 to 31 percent in 2017.

Barriers to Success: Over the history of the survey, there has been a shift in the identified barriers to success as a nurse informaticist. In the 2004 and 2007 surveys, respondents identified the lack of financial resources as the top barrier while in 2011 it was the lack of integration and interoperability. In 2014 and for this year's survey, a lack of administrative support and a lack of staffing resources were the primary barriers faced. Lack of administrative support as a top barrier increased from 17 percent in 2014 to 21 percent in 2017.

2. Methodology

HIMSS surveyed nurse informaticists to gain a better understanding of their background, experience, employment and the tools they use on a day-to-day basis. An email invitation with a link to the web-based survey was sent to nurse informaticists in November and December 2016. A total of 1,279 valid responses were received and will be covered in the following analysis. In contrast, the 2014 survey received a total of 1,047 useable responses.

Invitations were also sent by organizations that sponsored and supported this research. These organizations include:

- Alliance for Nursing Informatics (ANI)
- American Medical Informatics Association (AMIA)
- American Nursing Informatics Association (ANIA)
- American Organization of Nurse Executives (AONE)
- Association of Pediatric Gastroenterology and Nutrition Nurses (APGNN)
- Association of Peri Operative Registered Nurses (AORN)
- National Council State Boards of Nursing (NCSBN)
- Society of Gastroenterology Nurses & Associates (SGNA)

3. About the Respondents

Titles

The titles of respondents to the 2017 survey cover a wide range of positions. Nursing Informatics Specialists make up 20 percent of the 2017 survey respondents, which is a slight decrease to the number of respondents with the same title in 2014 (23 percent). The next most reported titles were Director of Clinical Informatics, with the biggest increase from 2014 (seven percent), and Clinical Analyst (five percent). Directors of Clinical Informatics made up only one percent of 2014 respondents. The number of respondents with a Clinical Analyst title decreased slightly from seven percent in the 2014 survey. Consultant and Clinical Applications Specialist represented approximately four percent of respondents.

Top Respondent Titles

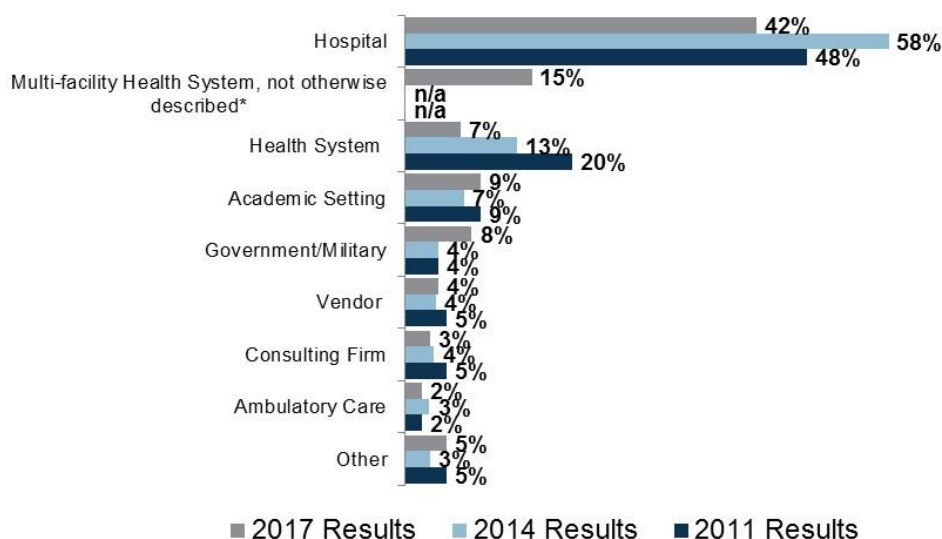


In 2017, 51 percent of the reported titles specifically identified an informatics position (informatics or informaticist). This is a decrease in the amount of informatics positions reported in 2014 (70 percent). In 2014 there were 308 unique titles captured while in 2017 there are 473 unique titles. This increase in the number of different titles may indicate the expanding jobs in nursing informatics and the variety of positions in the field.

Workplace

Over two-fifths (42 percent) of the survey respondents work at a hospital. Another 16 percent work at a multi-facility health system and another seven percent work at the corporate offices of a healthcare system. In addition, nine percent of respondents work at an academic setting (including academic medical centers and health systems). Those who work for the government, a vendor or a consulting firm make up a total of 15 percent of respondents. The remaining respondents work for a variety of other types of organizations including ambulatory care, payer organizations/managed care, public health facilities, skilled nursing facilities and health information exchange organizations (HIOs).

Workplace



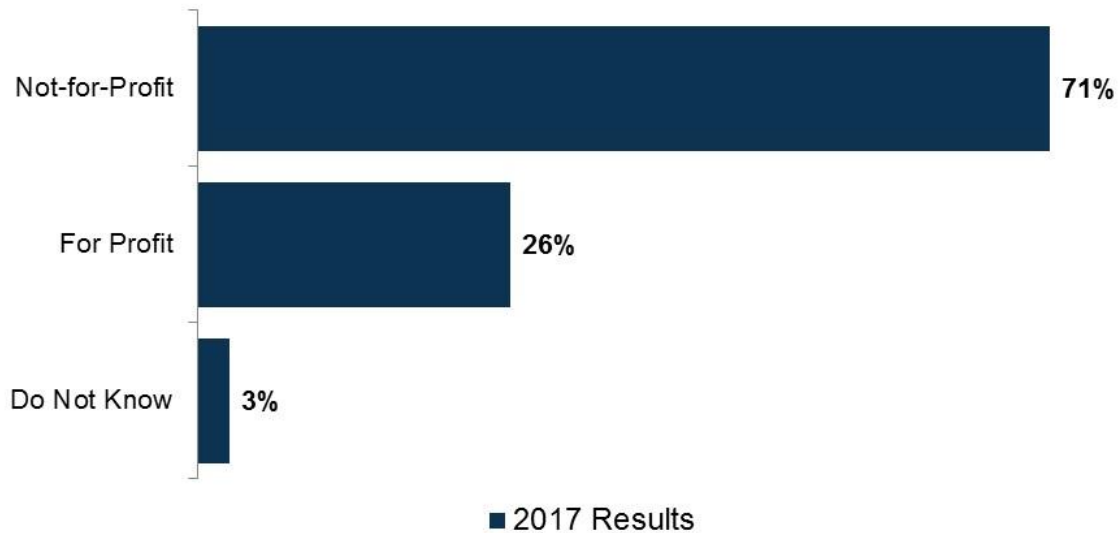
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* New selection option for 2017 survey

The number of respondents working at a hospital decreased from 58 percent in the 2014 survey. The option for multi-facility health system, not otherwise described was a new selection option in 2017. Respondents selecting this option instead of the hospital or corporate offices options could explain the decrease of these respondent types between surveys. There were slight increases for respondents working in academic settings and for the government. The number of those working for vendors responding to the survey stayed the same as 2014. The remaining types of workplaces represented have similar compositions to the 2014 survey.

New to 2017, respondents were asked to identify the profit status of their workplace. One-quarter (26 percent) of respondents stated they worked in a for-profit organization while 71 percent stated they worked at not-for-profit organizations.

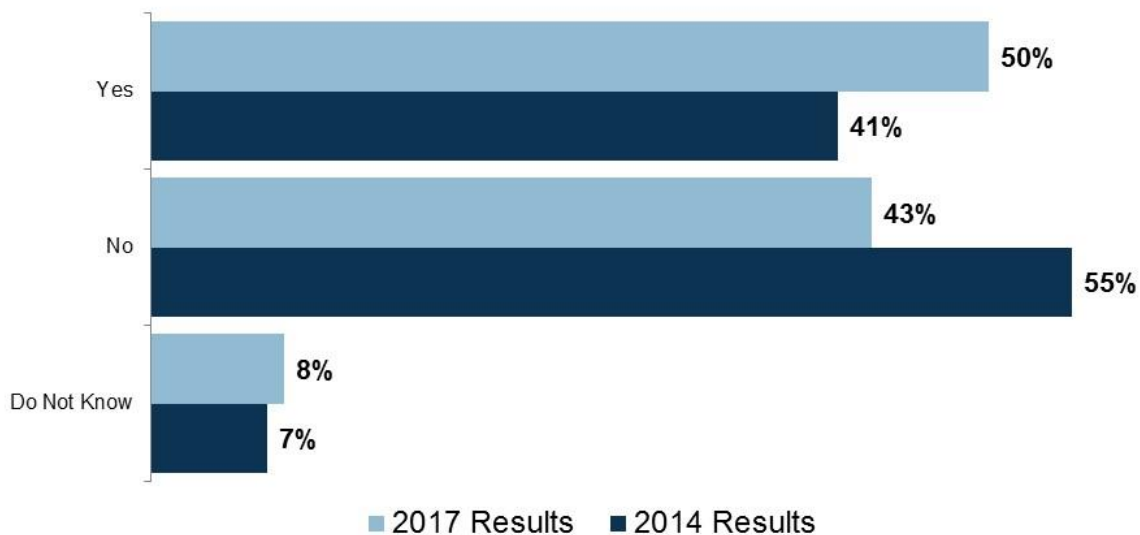
Workplace Type



Magnet Status

In order to explore the levels of quality patient care and nursing excellence at respondents' organizations, a question about Magnet status was added to the 2014 survey. Among those working at a hospital or the corporate offices of a healthcare system, 50 percent reported that their hospital (or one of the hospitals in their healthcare system) was a Magnet hospital compared to 41 percent in 2014.

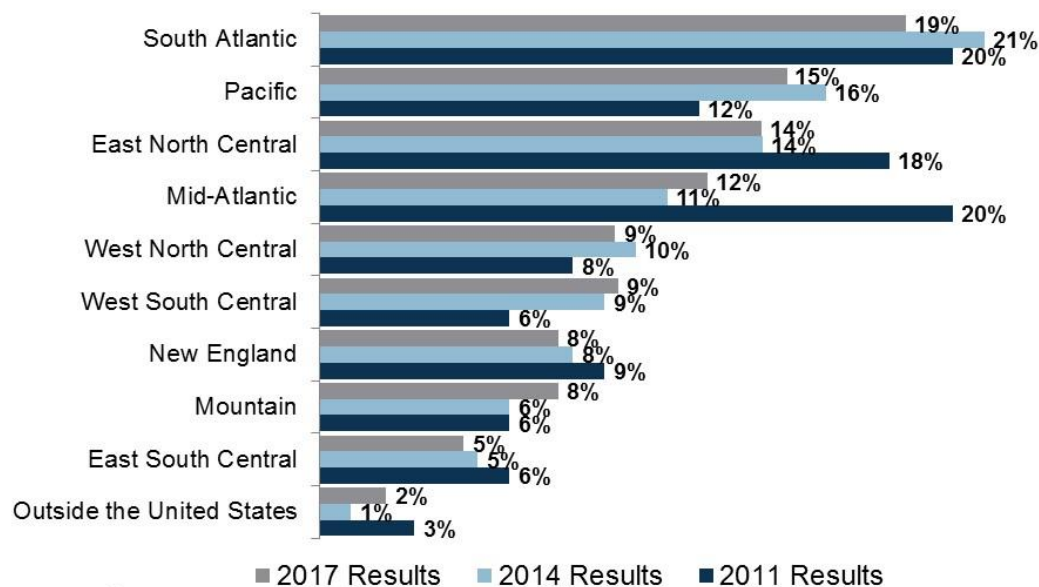
Hospital Magnet Status



Region

Almost one-fifth (19 percent) of respondents reported working in the South Atlantic² region, which was also the region with the most respondents in the 2011 and 2014 survey. Another 15 percent work in the Pacific³ region. Respondents working in the East North Central⁴ region total 14 percent; the same as the 2014 survey. After decreasing from 20 percent to 11 percent between the 2011 and 2014 surveys, respondents from the Mid-Atlantic⁵ region also stayed about the same at 12 percent in 2017. Just two percent of survey respondents reported working outside of the United States.

Geographic Region



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² The South Atlantic region includes Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, Washington DC and West Virginia

³ The Pacific region includes Alaska, California, Hawaii, Oregon and Washington

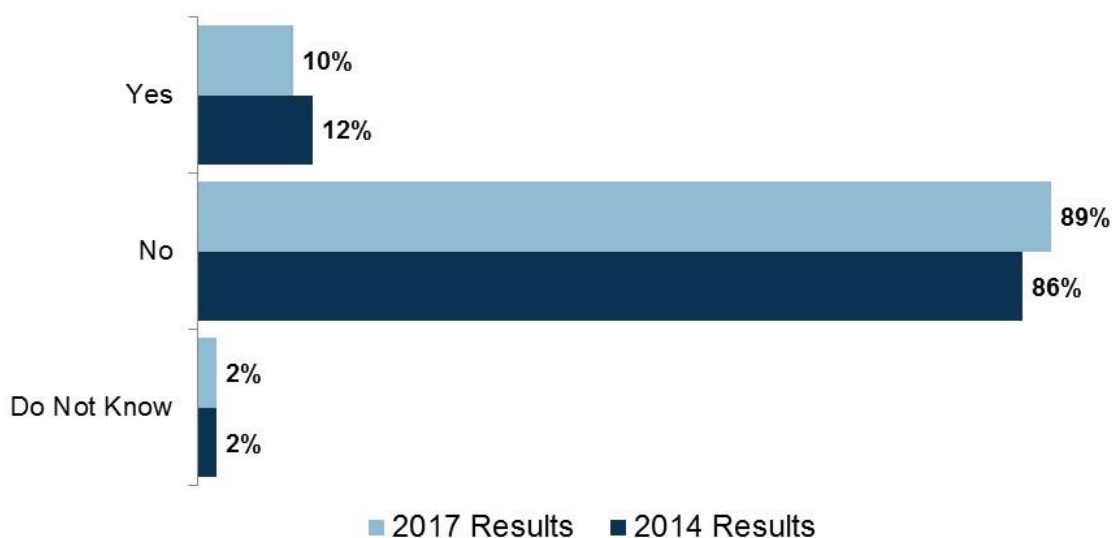
⁴ The East North Central region includes Illinois, Indiana, Michigan, Ohio and Wisconsin

⁵ The Mid-Atlantic region includes New Jersey, New York and Pennsylvania

Advanced Practice Registered Nurses

For the 2014 study, respondents were also asked if they were certified as an Advanced Practice Registered Nurse; 12 percent indicated that they were, whereas, in 2017 only 10 percent stated they were. Among the Advanced Practice Registered Nurses in 2017, just over half (53 percent) were Nurse Practitioners.

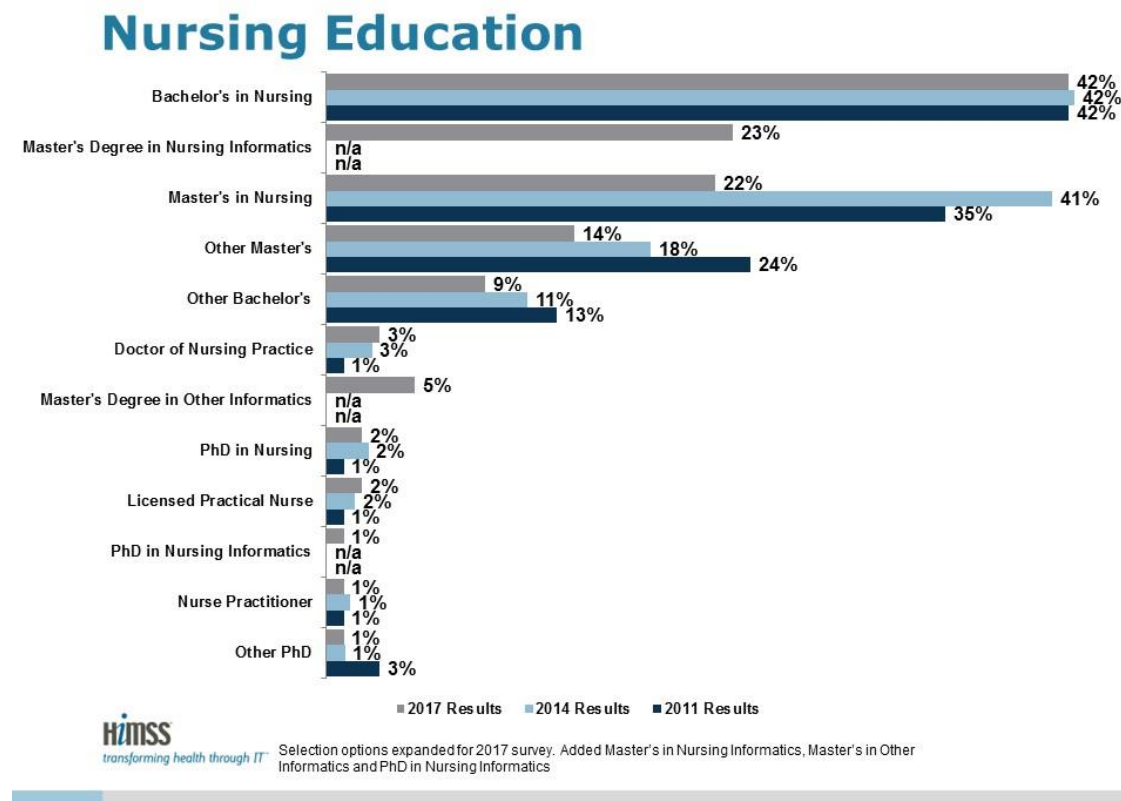
Advanced Practice Registered Nurse



4. Nursing Background and Education

Formal Education

Over half (57 percent) of respondents indicated they have earned a post-graduate degree⁶. This number is similar to the 2014 (60 percent) and 2011 (56 percent) survey and also represents an increase from the 2007 (52 percent) and 2004 (49 percent) surveys. In terms of the specific nursing post-graduate degrees respondents have earned, 22 percent have a Master's in Nursing. In addition, 23 percent have a Master's in Nursing Informatics. While the Master's in Nursing responses represented a decrease from the 2014 survey (41 percent), the option to select Master's in Nursing Informatics and a Master's in Other Informatics were added to the 2017 survey. Approximately half (48 percent) of respondents have a Master's in Nursing, Nursing Informatics or other Informatics.



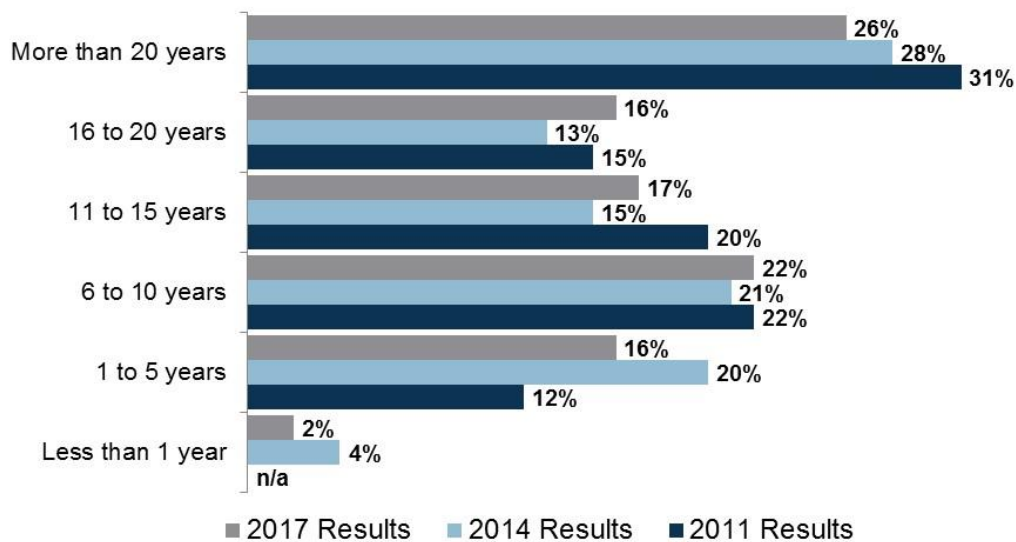
⁶ Includes Master's Degree in Nursing, Master's Degree in Nursing Informatics, Master's Degree in other Informatics, Master's Degree in other field/specialty, Doctor of Nursing Practice, PhD in Nursing, PhD in Nursing Informatics and PhD in other field/specialty

Clinical Experience

Respondents were also asked to identify how many years of bedside clinical experience they had prior to becoming a nurse informaticist. Over one quarter of respondents (26 percent) had more than 20 years of clinical experience, while one-third (33 percent) had between 11 and 20 years of clinical experience. Those who had more than 20 years of clinical experience decreased slightly from 28 percent in 2014 while those who had 11 to 20 years clinical experience increased from 28 percent in 2014.

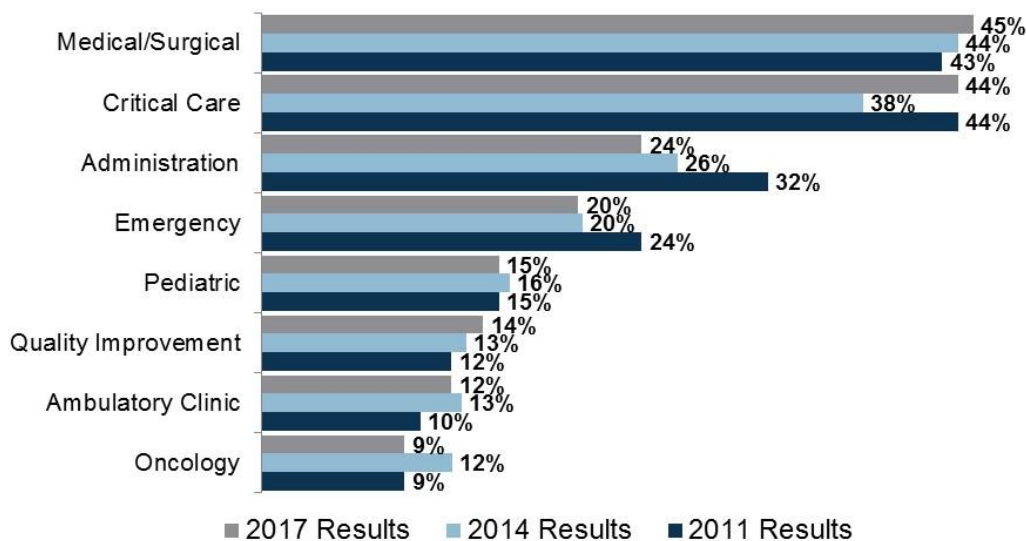
In 2017, 22 percent of respondents had six to 10 years of clinical bedside experience, up from 21 percent in 2014. The number of respondents with between one and five years of clinical experience decreased from 20 percent in 2014 to 16 percent in 2017. Those with less than one-year clinical experience decreased from 4 percent in 2014 to 2 percent in 2017.

Years of Clinical Experience



When asked about their nursing background, 45 percent of respondents had general medical/surgical experience. This is similar to the results of the 2014 survey. Another 44 percent of respondents had experience in critical care, which represents an increase from 38 percent in 2014. Almost one-quarter (24 percent) of the survey respondents came from an administration background, which is a slight decrease from 2014 (26 percent). Twenty (20) percent had emergency department experience, which is the same as the 2014 survey. Those with ambulatory clinic experience decreased from 13 percent in 2014 to 12 percent in 2017 but this is still lower than the 19 percent with ambulatory clinic experience in the 2007 survey. Respondents with experience in pediatrics, perioperative, quality improvement and long-term care each increased by two percentage points from the 2014 survey.

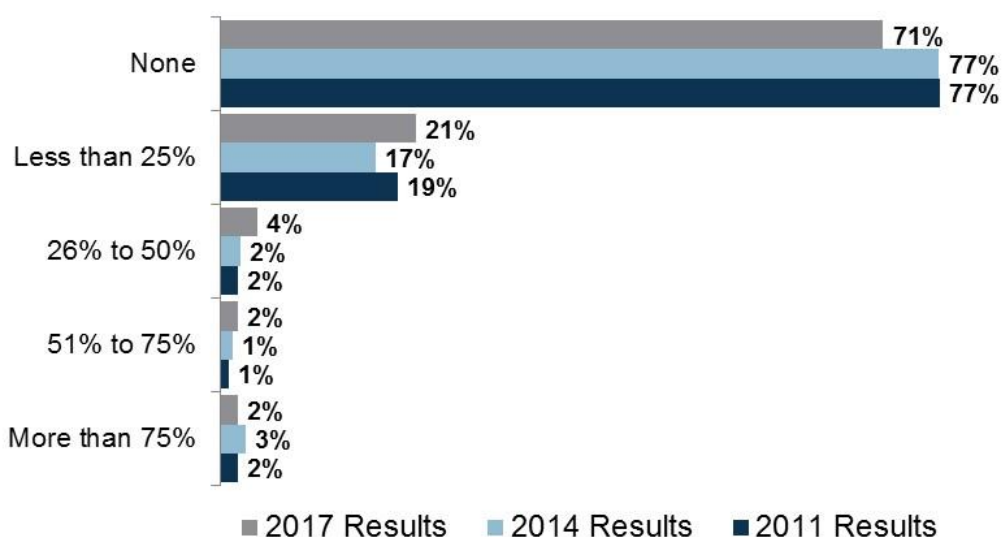
Nursing Experience



Time Spent on Clinical Activities

When asked to estimate the percentage of their time spent on clinical activities, over two-thirds (71 percent) reported they did not spend time on clinical activities. An additional 21 percent of respondents indicated that less than one quarter of their time was spent on clinical activities. In 2014, over three-quarters (77 percent) of respondents did not spend time on clinical activities and 17 percent spent less than 25 percent of their time on clinical activities. In 2011, over three-quarters (77 percent) of respondents did not spend time on clinical activities and 19 percent spent less than 25 percent of their time on clinical activities.

Percent of Time Spent on Clinical Activities

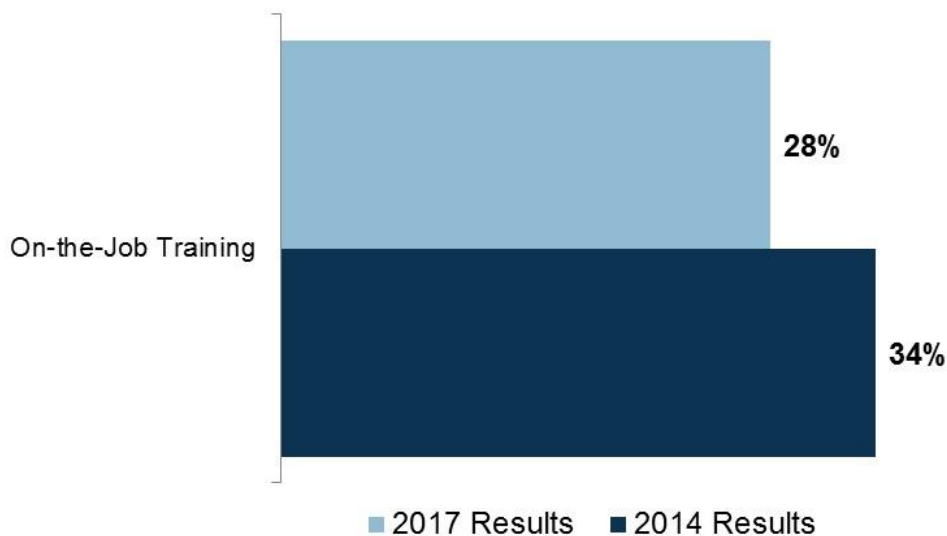


5. Nursing Informatics

Prior Informatics Education and Training

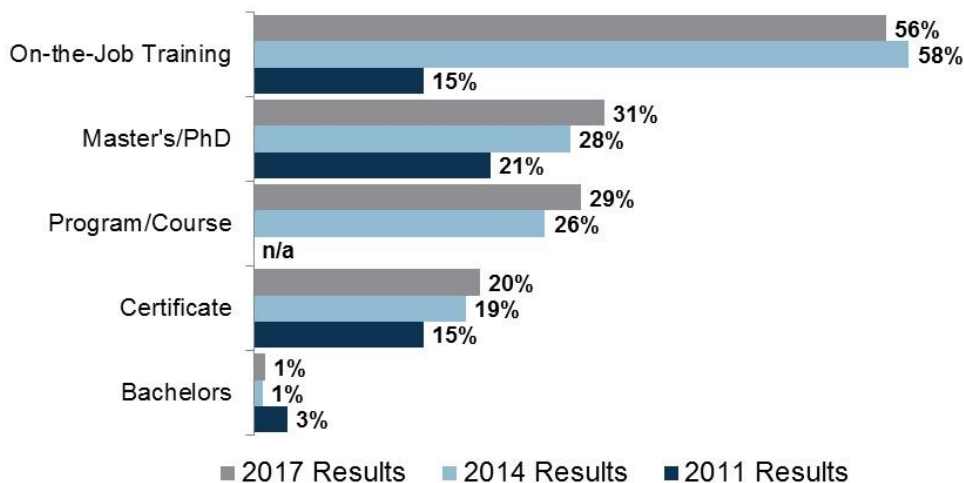
The majority of respondents to the 2017 study (56 percent) indicated they had received informatics education and training on-the-job. Over one-quarter (28 percent) of respondents report that on-the-job training was the only informatics training they received. This is a decrease from 2014 where 37 percent of respondents had only on-the-job training. This decrease may indicate the rise of informatics specific education and training available.

Prior Informatics Education/Training On-the-Job Training Only



Nearly one-third (31 percent) of respondents had a Master's Degree or PhD in either nursing informatics or other informatics, an increase from 28 percent in the 2014 survey. Over one-quarter (29 percent) had participated in a nursing informatics or other informatics program/course where a certificate or degree was not obtained as compared to 26 percent in 2014. Finally, 20 percent of respondents indicated they held a certificate in nursing informatics or other informatics, a slight increase from the 19 percent who reported a certificate in 2014.

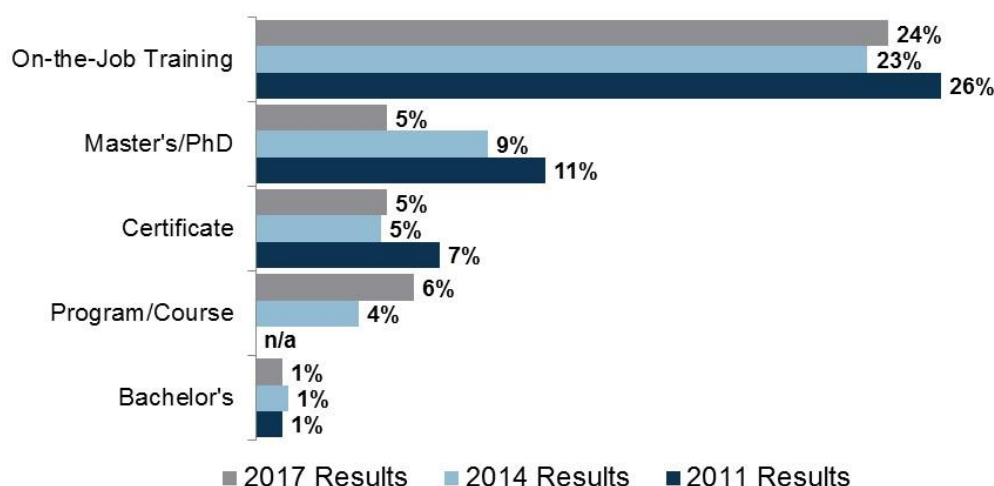
Prior Informatics Education/Training



Current Informatics Education and Training

With regard to current informatics education and training, approximately one-quarter (24 percent) of respondents reported participating in on-the-job training; this is a slight increase to what was reported in 2014 (23 percent). Another five percent indicated that they are pursuing a Master's Degree or PhD in nursing informatics or other informatics, which is a decrease from 9 percent in 2014. Another five percent are pursuing certification, which is the same amount reported in the 2014 survey. Six percent of respondents were pursuing a non-degree program/course, which is an increase over 2014's four percent. Six percent of respondents were pursuing a non-degree program/course, which is an increase over 2014's four percent.

Current Informatics Education/Training

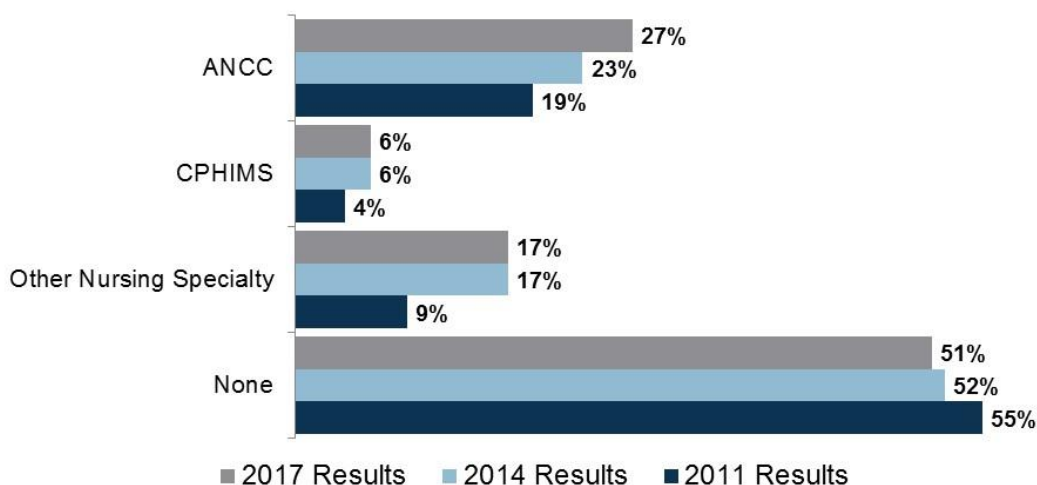


Certification Held

Nearly half (47 percent) of this year's respondents held some type of certification. This is similar to 2014 results of 48 percent.

Over one-quarter (27 percent) of all respondents reported having nursing informatics certification through the American Nurses Credentialing Center (ANCC), an increase over 2014's 23 percent. Just as in 2014, six percent of the 2017 respondents are a Certified Professional in Healthcare Information and Management Systems (CPHIMS) offered through HIMSS. Additionally, 17 percent of respondents indicated that they hold another type of nursing specialty certification such as Certification for Adult, Pediatric and Neonatal Critical Care Nurses (CCRN), Certified Emergency Nurse (CEN) and Certified Nurse-Operating Room (CNOR). This may suggest that those working in nursing informatics come from a variety of backgrounds.

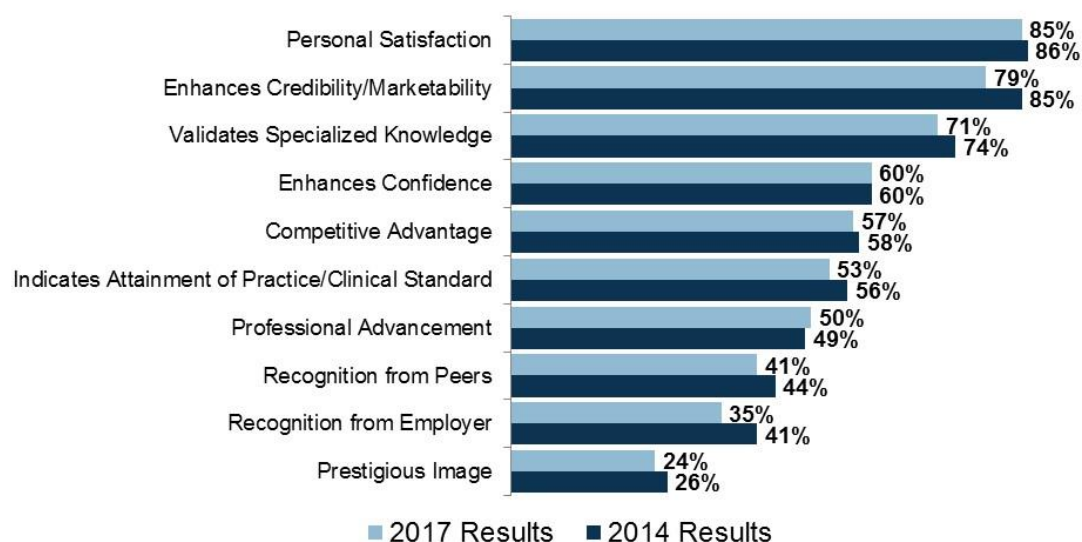
Certification Held



Value of Certification

For those that hold certifications, the most reported perceived values of holding certification were personal satisfaction (85 percent), enhancing credibility and marketability (79 percent) and that it validates specialized knowledge (71 percent). These were also the top three areas of value from the 2014 survey.

Perceived Value in Holding Certification



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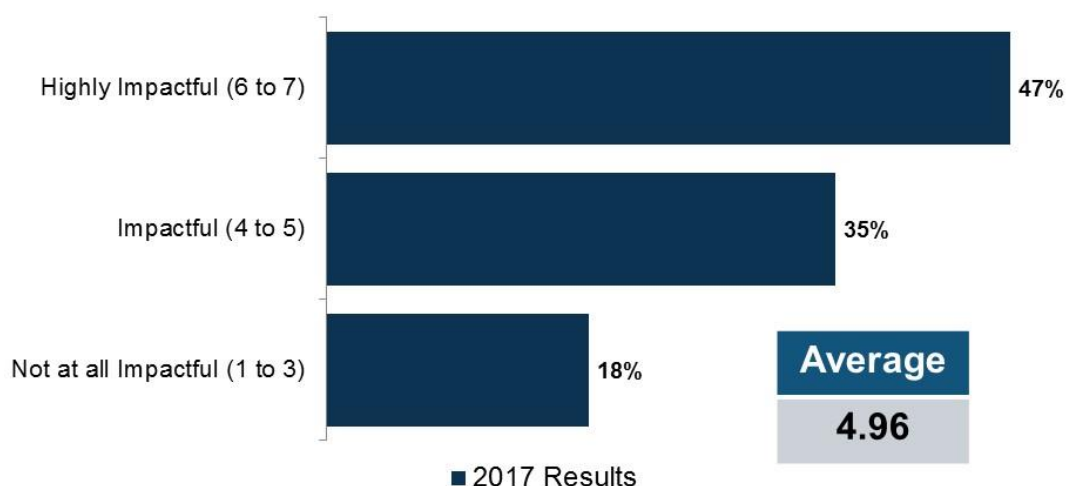
Percentage of respondents with certification

Impact of Certification

A new series of questions in the 2017 survey asked respondents about the perceived impact certification has had on their careers including if they have been promoted since receiving certification.

Overall, certification is seen to be impactful to one's nursing informatics career. Nearly half (47 percent) gave a highly impactful rating for the affect certification had on their career path⁷. The average of all respondent ratings was 4.96⁸.

Impact of Certification to Career Path



New Survey Question added to 2017. Respondents asked to use a scale of one to seven, where one is not at all impactful and seven is highly impactful.

Two-fifths (40 percent) of respondents have moved into a new role with greater responsibility after achieving certification. Over half (56 percent) of those who moved into that role did so within one year of achieving that certification.

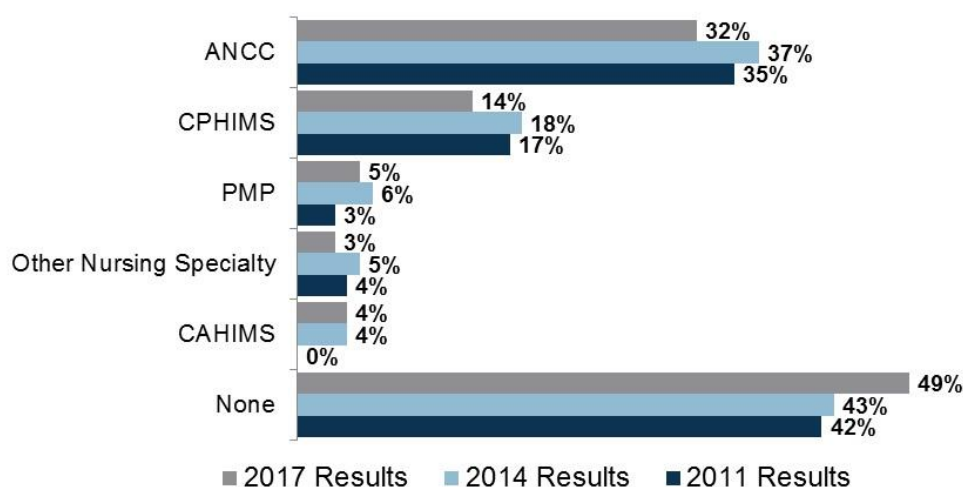
⁷ Respondents who rated the satisfaction at six or seven

⁸ On a scale of one (1) to seven (7), where one is no impact and seven is high level of impact

Pursuing Certification

Respondents were also asked to indicate if they anticipated obtaining any certifications within the next year. Just over half (51 percent) of the respondents reported that they would be pursuing a certification, which is a decrease to the 57 percent that reported in 2014. Specifically, 32 percent planned to obtain a certification through ANCC. Another 14 percent plan to pursue a CPHIMS certification. This is a slight decrease to what was reported in 2014. In addition, five percent of respondents plan to pursue a Project Management Professional certification, down a percent from 2014. Four percent of respondents plan to pursue the Certified Associate in Healthcare Information and Management Systems (CAHIMS) certification, which is the same as in 2014.

Nursing Informatics Certification Pursuing

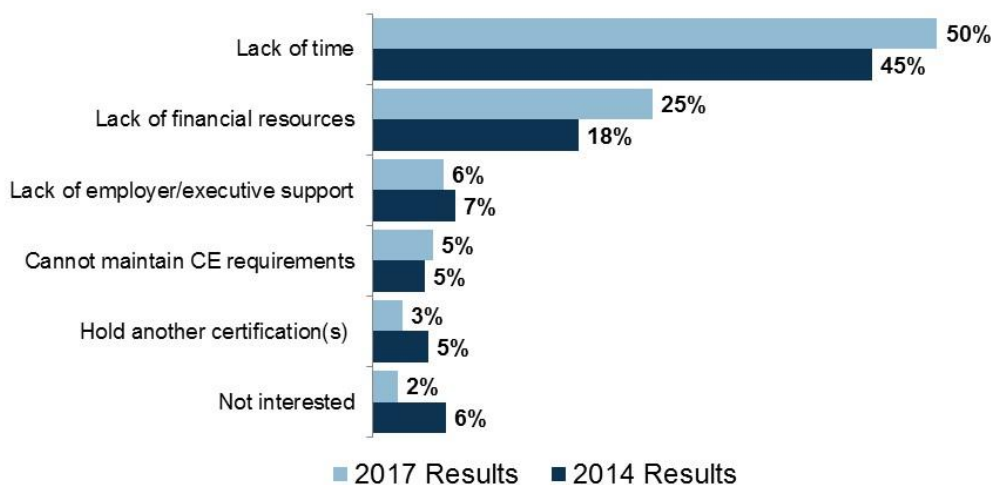


Barriers to Certification

Understanding the top barriers nurse informaticists face in regards to obtaining certification was explored for the first time in the 2014 survey. However, in 2017 this question was asked separately to those who hold certification or are pursuing certification and to respondents who did not hold certification and were not planning to pursue certification. Two-fifths (41 percent) of respondents without certification and not pursuing certification cited the lack of time as their top barrier. Nineteen (19) percent identified lack of financial resources as a barrier. Lack of time (50 percent) and financial resources (25 percent) were also the reported top barriers to obtaining certification by respondents who hold or are pursuing certification.

For those that held certification or were pursuing certification, lack of time (50 percent) was also the most reported barrier. This is followed by lack of financial resources at 25 percent.

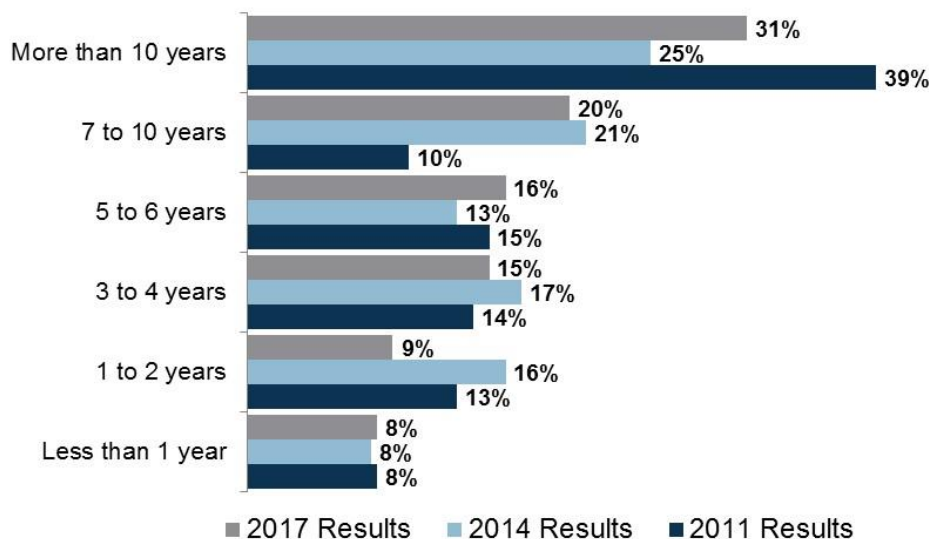
Top Barrier to Certification



Informatics Career

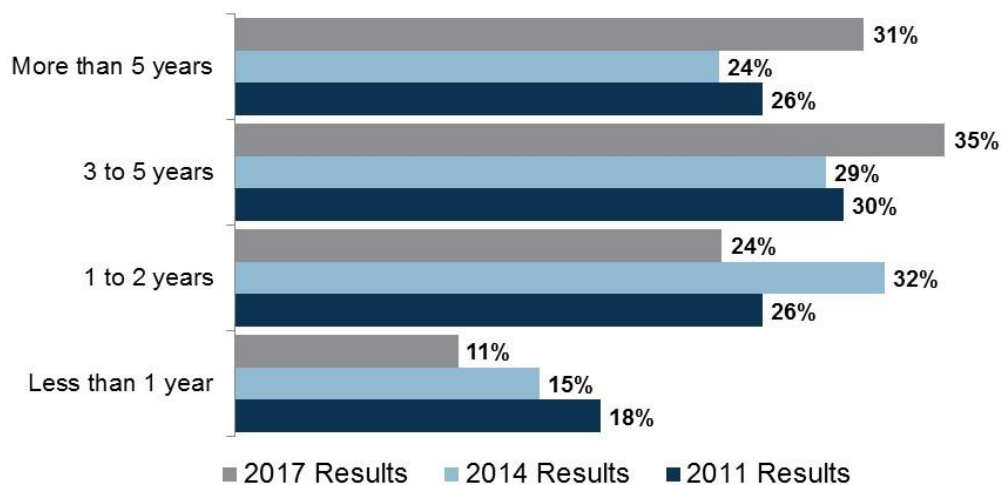
With respect to the duration of their informatics career, respondents with two years or less made up 18 percent as compared to 24 percent in 2014. Fifteen (15) percent have three to four years of experience, which is a slight decrease from 17 percent in 2014. Another 16 percent have been a nurse informaticist for five to six years, which is an increase from 2014 (13 percent). The number of respondents with seven to ten years of experience decreased to 19 percent in 2017 from 21 percent in 2014. Nearly one-third (31 percent) of respondents had more than ten years of experience. This was an increase from 25 percent in the 2014 survey. Overall, the number of years of experience as a nurse informaticist increased from the 2014 survey.

Years of Informatics Experience



Over one-third (35 percent) of survey respondents reported that they had been in their current position for two years or less which is a decrease from 2014 (47 percent). Another third (35 percent) have been in their position for three to five years compared to 29 percent in 2014. Just under one-third (31 percent) had been in their position for more than five years which is an increase from 2014 (24 percent). The increase in respondents' years in their position helps to show how the nursing informatics specialty has expanded over the years.

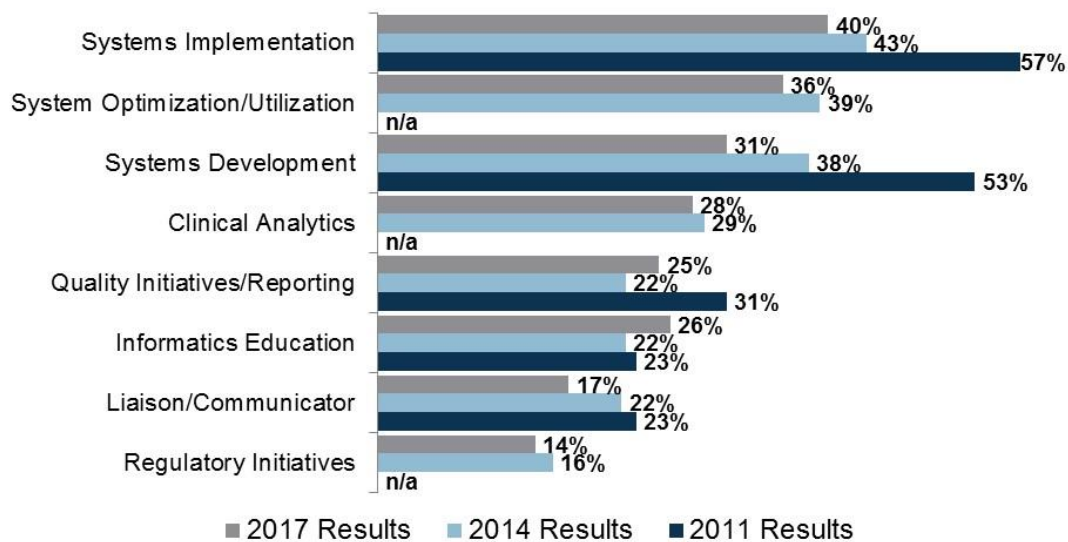
Years in Current Position



Job Responsibilities

Systems implementation, which includes preparing users, training and support, was the most frequently selected job responsibility as reported by 40 percent of respondents. System optimization/utilization was the second most selected job responsibility (36 percent) followed by systems development (31 percent). These were also the most frequently selected job responsibilities for the responding nurse informaticists in 2014. The least frequent job responsibilities include professional billing and coding (less than one percent), systems selection and sales/marketing (each less than two percent).

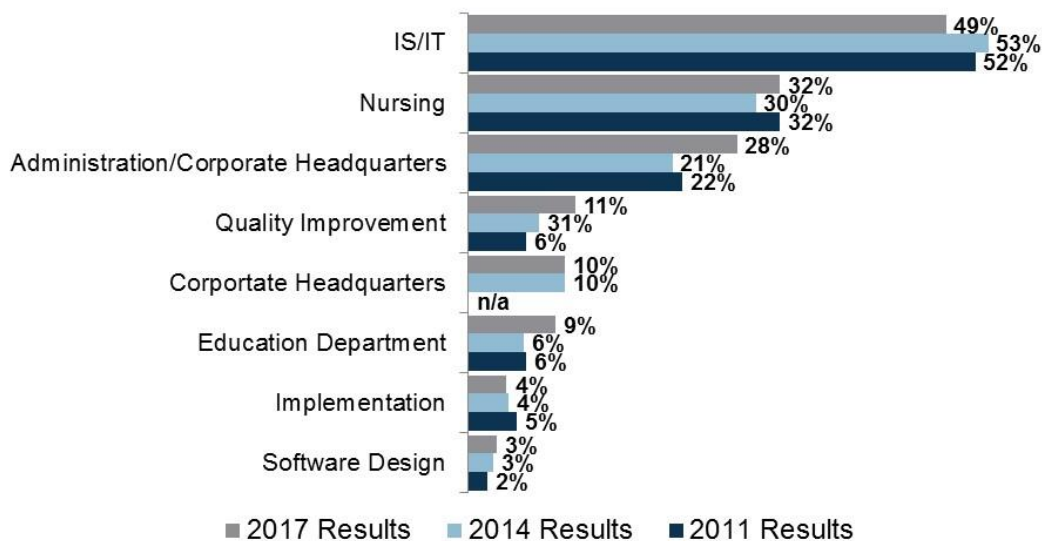
Job Responsibilities



Reporting Structure

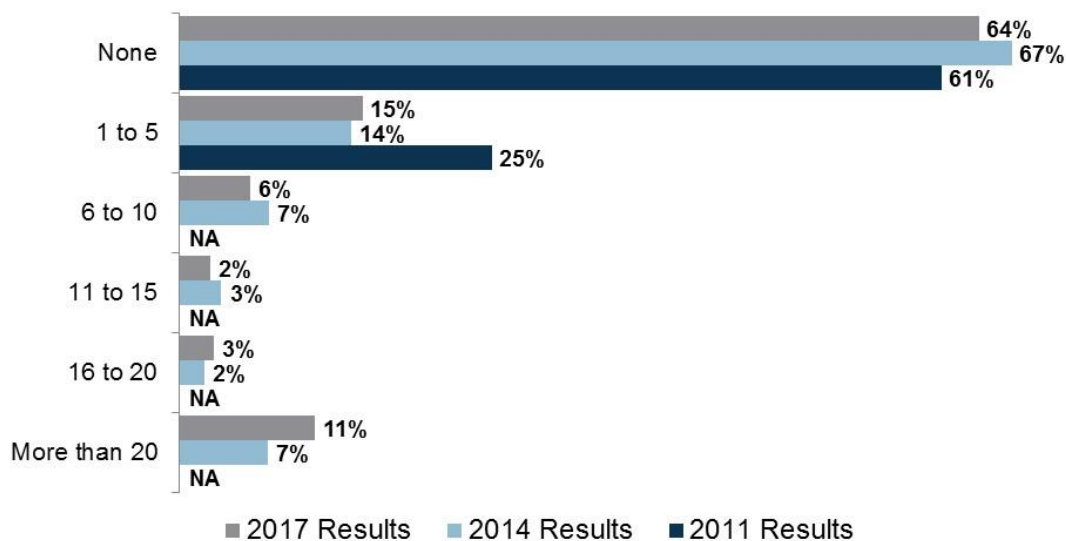
While the number of respondents who report to Information Systems/Technology/Informatics decreased from 53 percent in 2014 to 49 percent in 2017, this is still the most likely department for a nurse informaticist to report in to. Another third (32 percent) report to Nursing, similar to 2014 results (30 percent). There was an increase in the number of respondents reporting to Administration, which increased from 21 percent in 2014 to 28 percent in 2017.

Department to Which You Report



Two-thirds (67 percent) of respondents indicated that there are no individuals who report to them, which is the same results as 2014. Of the respondents who had others reporting to them (both direct and in-direct reports), nine percent had between ten and 20 total reports which was an increase from 2014 (7 percent). Another 11 percent had more than 20 total reports compared to only 7 percent in 2014.

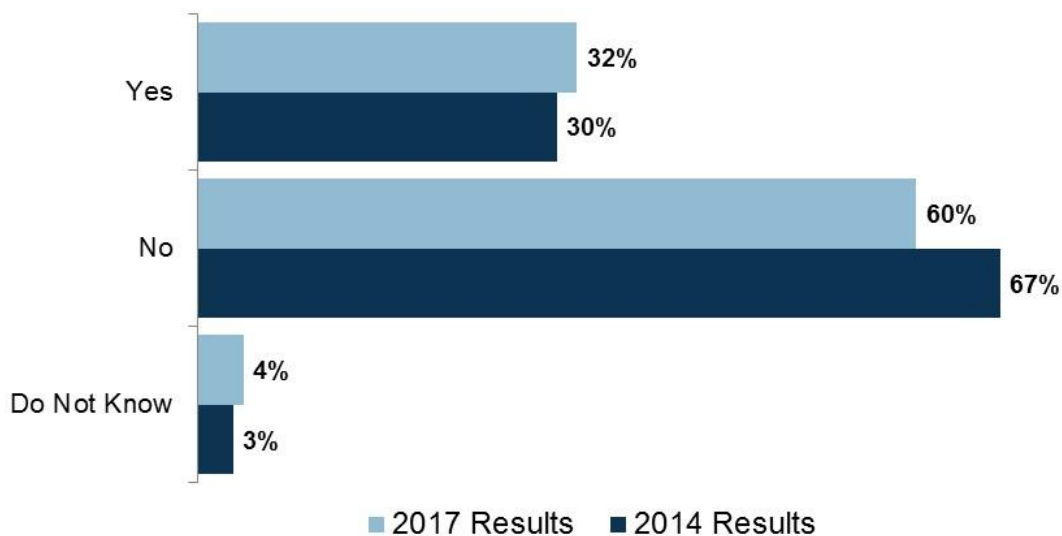
Total Number of Reports (direct & indirect)



Governance

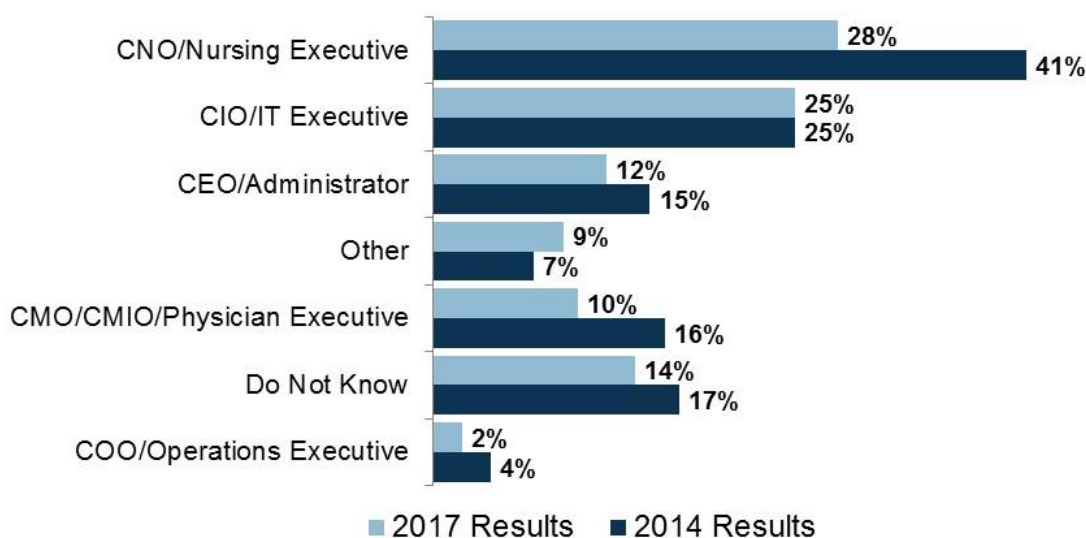
Respondents reported on the presence of a senior nursing informatics executive, such as a Chief Nursing Informatics Officer (CNIO), in their organization. Nearly one-third (32 percent) of respondents reported that their organization has a senior nursing informatics executive as compared to 30 percent in 2014.

Senior Nursing Informatics Executive (CNIO) at Organization



Respondents whose organizations have a senior nursing informatics executive were also asked to whom this person reported. Over a quarter (28 percent) of the senior nursing informatics executives report to a CNO/Nursing Executive, which is a decrease from 2014 (41 percent). One-quarter (25 percent) of these senior nursing informatics executives report to the Chief Information Officer (CIO)/IT Executive, which are similar results to 2014. Other positions that this executive reports to include Chief Executive Officer (CEO)/Administrator (12 percent) and Chief Medical Officer (CMO)/Chief Medical Information Officer (CMIO)/physician executive (10 percent). However, 14 percent of the respondents did not know to whom the executive reported.

Reporting Structure for Senior NI Executive



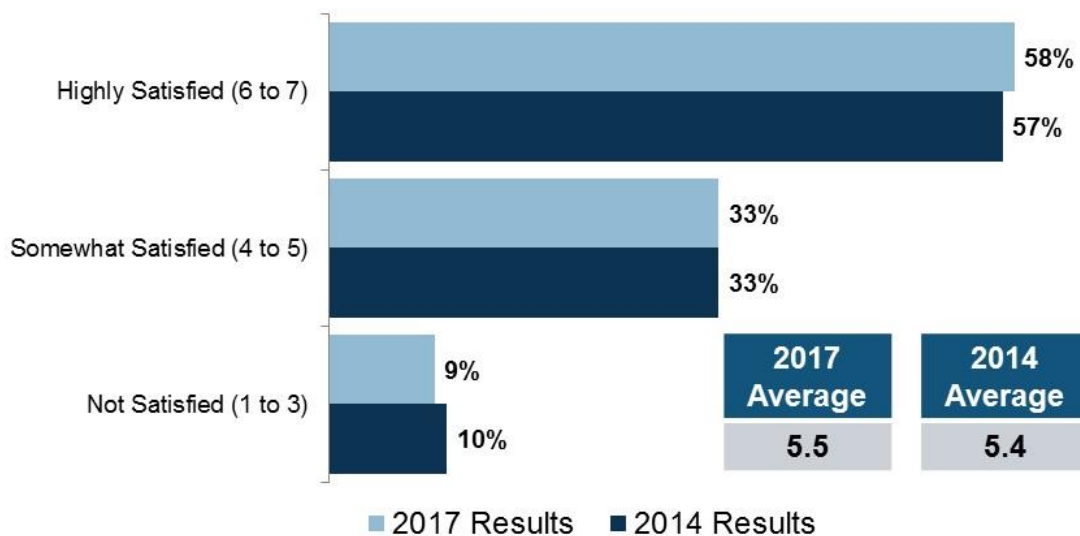
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2014 study allowed respondents to select more than one as compared to 2017 which allowed one selection

Job Satisfaction

Respondents rated their level of job satisfaction with both their current position and their career choice in informatics⁹. Respondents rated satisfaction with their current position with an average score of 5.5, which is a small increase from 5.4 in 2014. Over half (58 percent) of respondents gave a top box¹⁰ score for satisfaction in their current position, meaning they were satisfied or highly satisfied with their position which was a slight increase over the 2014 results (57 percent).

Job Satisfaction in Current Position



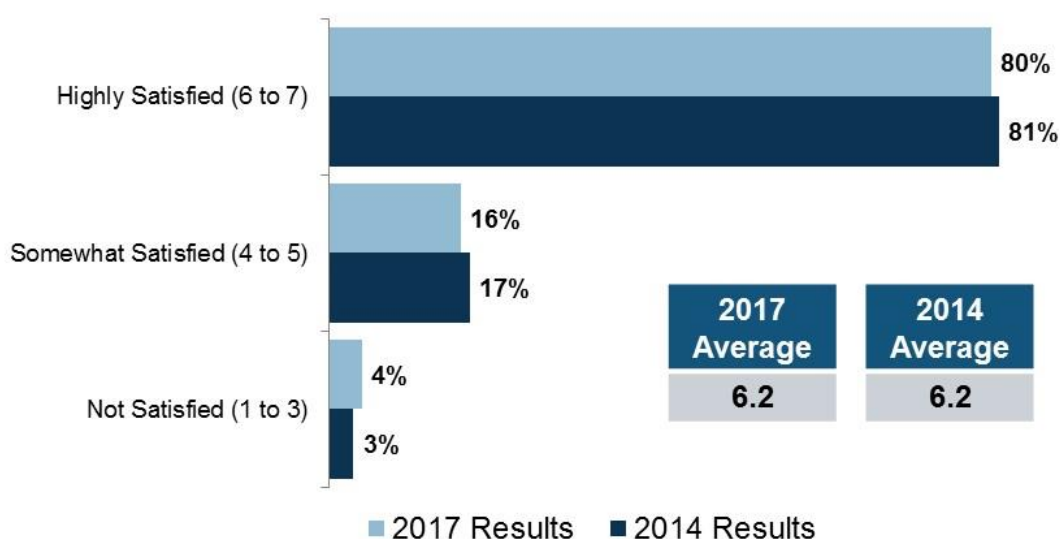
Respondents asked to use a scale of one to seven, where one is not at all satisfied and seven is highly satisfied.

⁹ On a scale of one (1) to seven (7), where one is not at all satisfied and seven is highly satisfied

¹⁰ Respondents who rated the satisfaction at six or seven

Satisfaction with their career choice in informatics averaged at 6.2, again similar to the 2014 results. The majority of respondents (80 percent) rated satisfaction with their choice of career at satisfied or highly satisfied, which was a slight decrease from 2014's 81 percent. Respondents seemed to be quite satisfied with their choice of career in informatics but not necessarily with the current position they hold.

Job Satisfaction in Informatics Career Choice



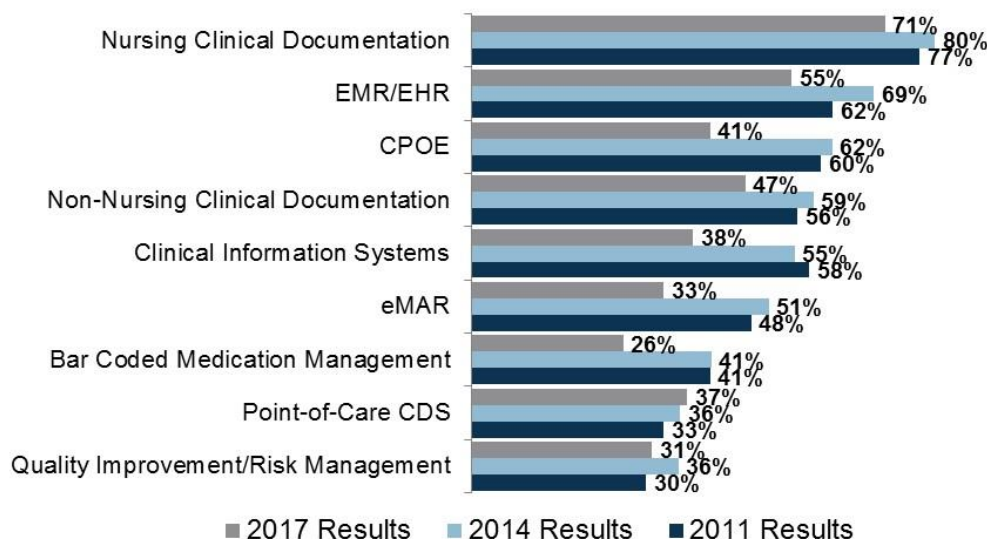
6. Applications

Applications Currently Developing, Implementing or Optimizing

Respondents were asked to identify the types of applications they currently participate in developing, implementing and/or optimizing. Nursing clinical documentation (71 percent) was the most frequently selected, followed by electronic medical record/electronic health record (EMR/EHR) (55 percent) and clinical documentation non-nursing (41 percent). This was a change from the top three applications with which nurse informaticists were most involved in the 2014 survey which includes nursing clinical documentation (80 percent), electronic medical record/electronic health record (69 percent) and computerized provider order entry (62 percent).

While over one-third (38 percent) of respondents reported that they are developing, implementing and/or optimizing clinical information systems, the number of respondents involved with this application decreased for the third survey in a row – from 77 percent in 2007, 58 percent in 2011 and 55 percent in 2014. Nurse informaticists were least likely to be involved in the development and implementation of practice management and enterprise master person index (six and five percent each).

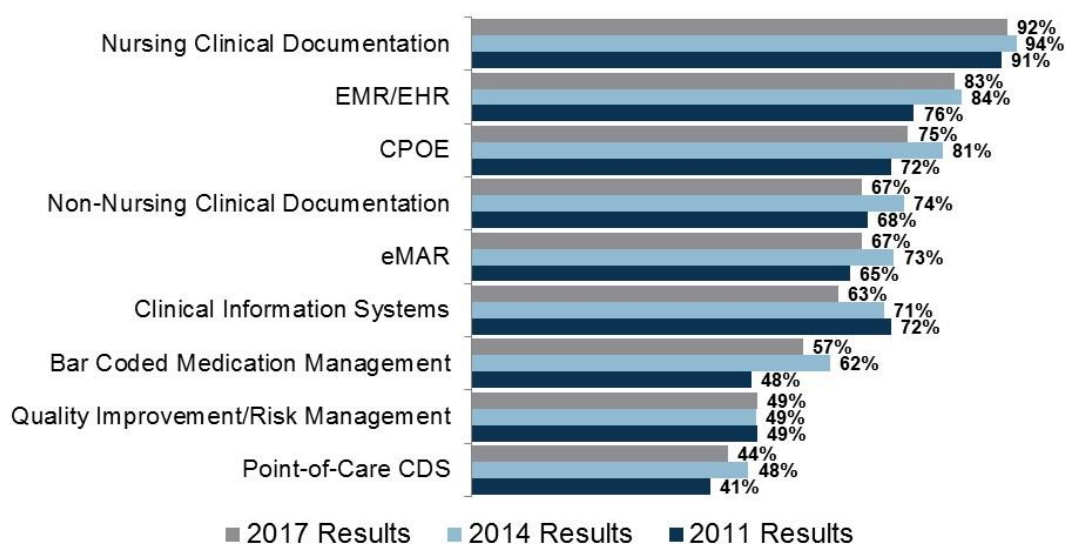
Applications Currently Developing/Implementing/Optimizing



Application Experience

In addition to the systems that survey respondents were currently developing, implementing and/or optimizing, they were asked to indicate the application areas in which they had experience. Almost all (92 percent) of the respondents reported that they had experience with nursing clinical documentation. This was also the application with the most reported experience in the 2014 survey. The other areas that nurse informaticists reported the most experience with include EMR/EHR (83 percent), CPOE (75 percent), non-nursing clinical documentation (67 percent) and eMAR (67 percent). These applications were also among the top six areas in 2014. Respondents were least likely to have experience in billing/financial systems (15 percent), practice management and voice communication/paging system (13 percent each).

Application Experience (Background)



7. Barriers to Success as a Nurse Informaticist

To better understand some of the challenges nurse informaticists face, respondents were asked to identify the top two barriers to their success as a nurse informaticist. Lack of administrative support (21 percent) and lack of staffing resources (13 percent) were identified as top barriers (ranked as the top barrier by respondents). These options were the top most reported barriers, respectively, from the 2014 survey. Organizational strategic plan was the third barrier (12 percent). The least identified barrier was lack of technology once again at one percent. These data suggest that nurse informaticists may need to overcome operational and organizational challenges rather than technological ones.

Top Barrier to Success as a Nurse Informaticist

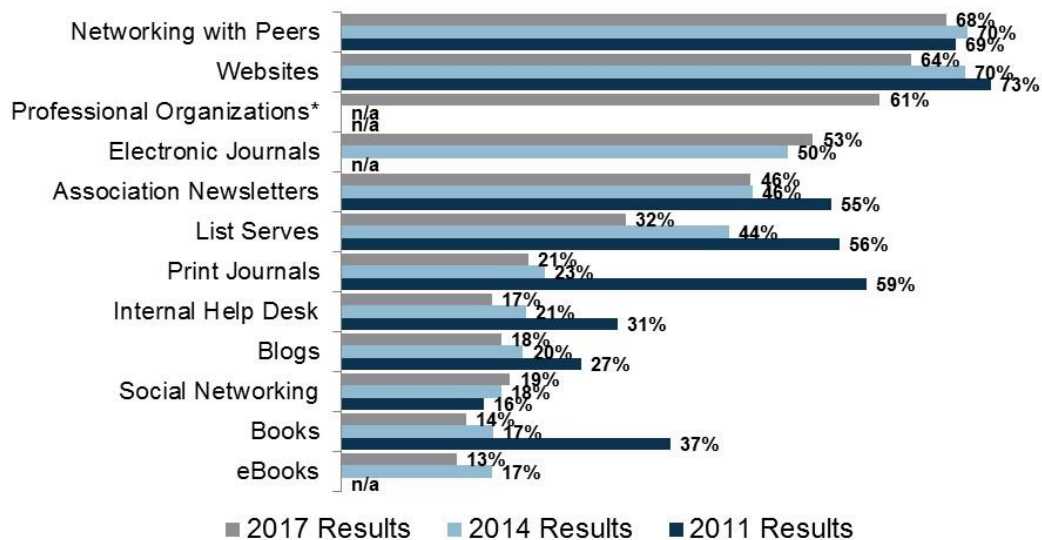


8. Sources of Information

Day-to-Day

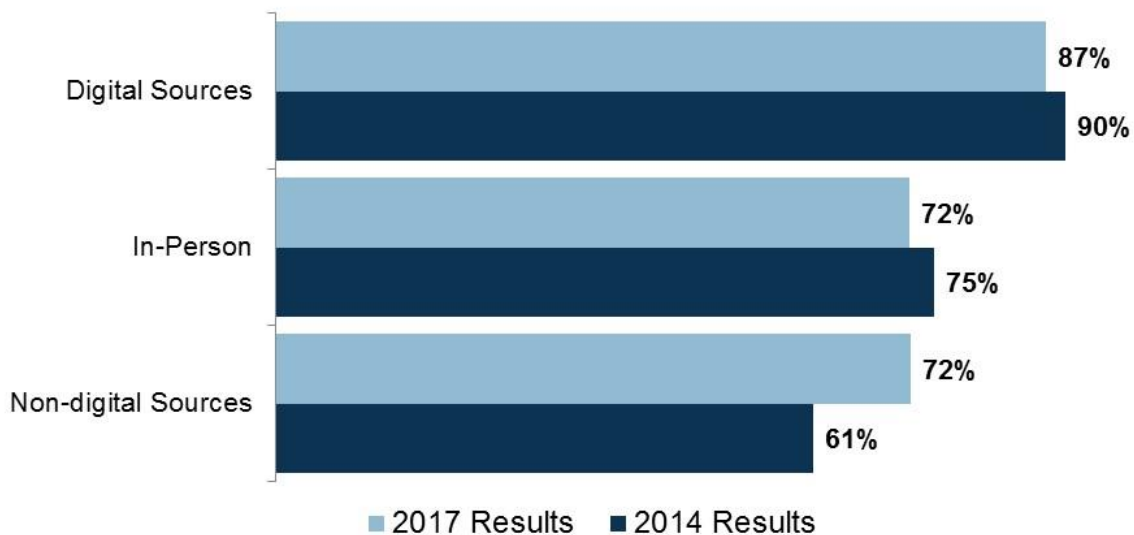
When asked to identify sources of information that nurse informaticists turn to in order to carry out their day-to-day job activities, respondents were most likely to report networking with peers (68 percent) and websites (64 percent). These options were similarly represented in the 2014 survey. Rounding out the top three for sources of information were professional organizations (61 percent).

Sources of Information for Day-to-Day Activities



To get a better idea of the types of information sources used, response options were collapsed into three categories, digital sources (websites, electronic journals, etc.), in-person sources (networking with peers, internal help-desk) and non-digital sources (professional organizations, association journals, etc.). Digital sources are the most used as reported by 87 percent of respondents.

Types of Sources of Information for Day-to-Day Activities



Selection options expanded for 2014 survey. Note Percentages greater than 100 because respondents can select more than one option.



Continuing Education

In regards to the sources respondents use for continuing education, audio conferences/webinars were the most reported (64 percent), which is consistent with the 2014 survey findings. Nearly two-thirds (60 percent) cited professional organizations as their source for continuing education. National conferences rounded out the top three at 48 percent.

A follow-up question about the most valuable source for continuing education was asked. Nearly one-quarter (23 percent) of respondents identified audio conferences/webinars as the source they find most valuable, followed by national conferences (19 percent). Only one percent of all respondents reported that international conferences were the most valuable continuing education source.

Sources of Information for Continuing Education



Topics of Interest

Respondents were asked to identify topics that they are interested in learning more about. In 2017, however, respondents were asked to rank the top three topics they were interested in. Nearly one-third of respondents (32 percent) selected clinical analytics as one of the top three topics to learn more about. In addition, 22 percent said regulatory/public policy/government policy was a top topic and 18 percent were interested in mobile/connected health. As the question was asked differently in previous surveys, a direct comparison is not possible.

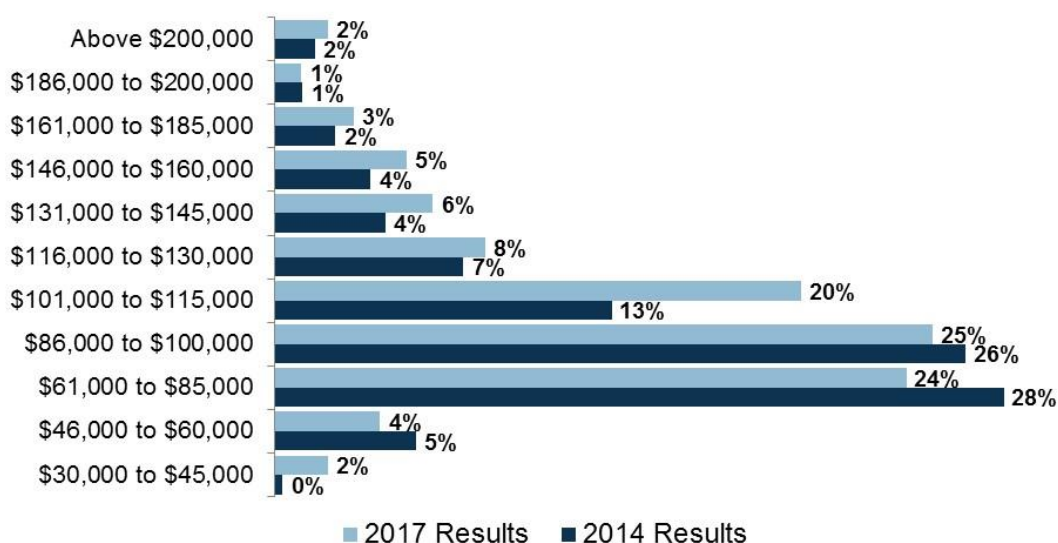
9. Salary and Compensation

Salary

Respondents were asked to identify their current base salary as of December 1, 2016 (not including benefits or bonuses) within a salary range. Previously respondents provided the full dollar figure rather than a salary range. Twenty-five (25) percent of respondents reported their salary ranged between \$86,000 to \$100,000. The second highest salary range was \$61,000 to \$85,000 (24 percent). This was followed by the range of \$101,000 to \$115,000 at 20 percent. Nearly half (46 percent) of respondents indicated a salary of over \$100,000 while in 2014, only 33 percent of respondents had a salary over \$100,000, an increase of 13 percentage points.

Compared to 2014 results, there was an increase from 13 percent of respondents to 20 percent of respondents who have a salary between \$101,000 and \$115,000. In addition, there were also slight increases for each salary range over \$116,000 from 2014 results.

Salary Range



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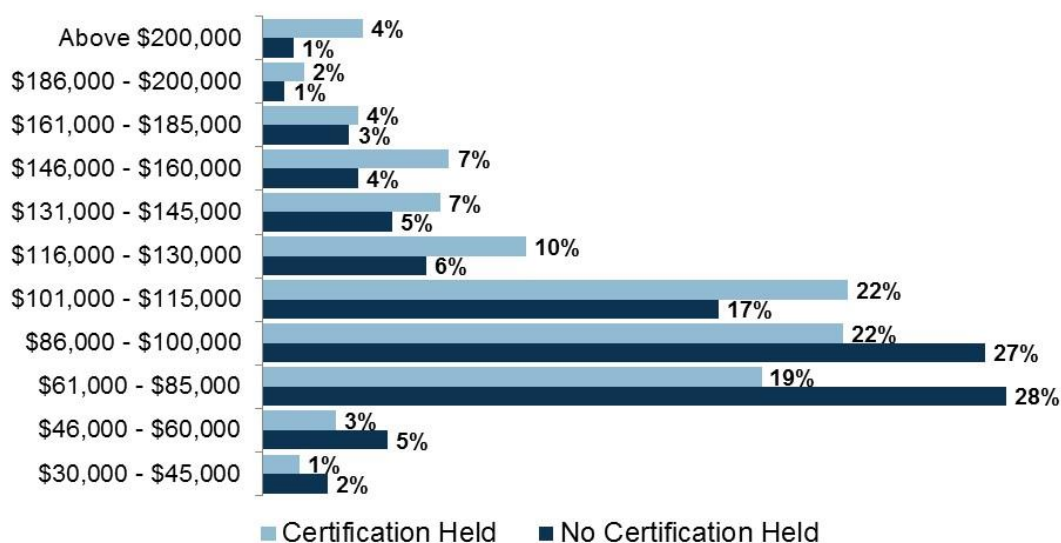
Question asked for salary range only starting in 2017

When looking at the salary range based on the region in which the respondent works, one-quarter of those in the Middle Atlantic and Pacific regions reported a salary range between \$101,000 to \$115,000.

Over one-quarter (27 percent) of respondents working at consulting firms have the highest salary range between \$116,000 to \$130,000 by workplace. The most reported salary range for those working for vendors was between \$101,000 to \$115,000 (23 percent).

In addition, respondents who held a certification in nursing informatics tended to have a higher salary than those without certification; over half (55 percent) of those with certification make more than \$100,000 a year compared to 37 percent of those without certification.

Salary Range & Certification

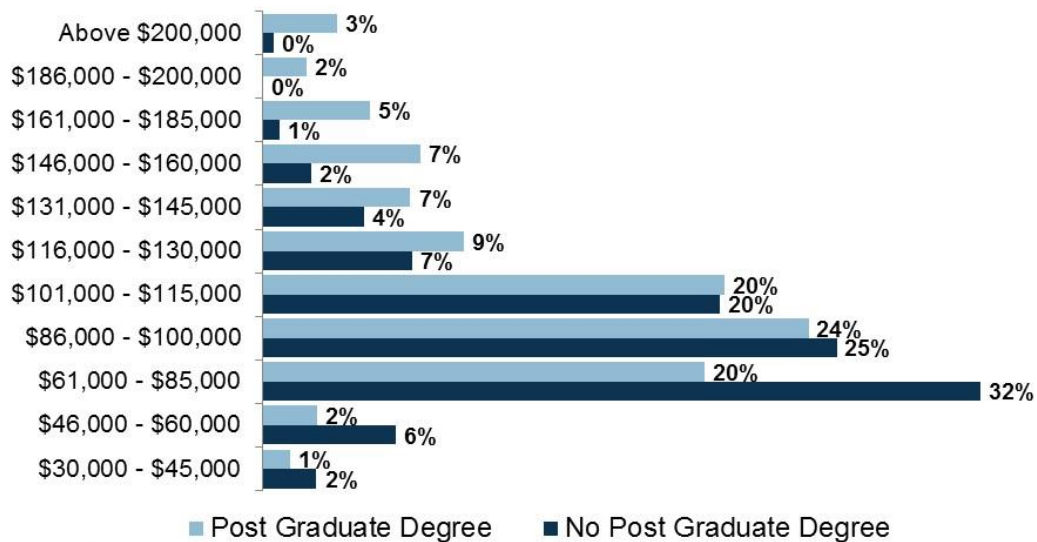


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Question asked for salary range only starting in 2017

Results are similar for respondents who held a post-graduate degree. Over half (53 percent) of those with a post-graduate degree make over \$100,000 a year while only 37% without a post-graduate degree make over \$100,000 a year. Placing an emphasis on education and certification appears to have an impact on the salary of nurse informaticists.

Salary Range & Education



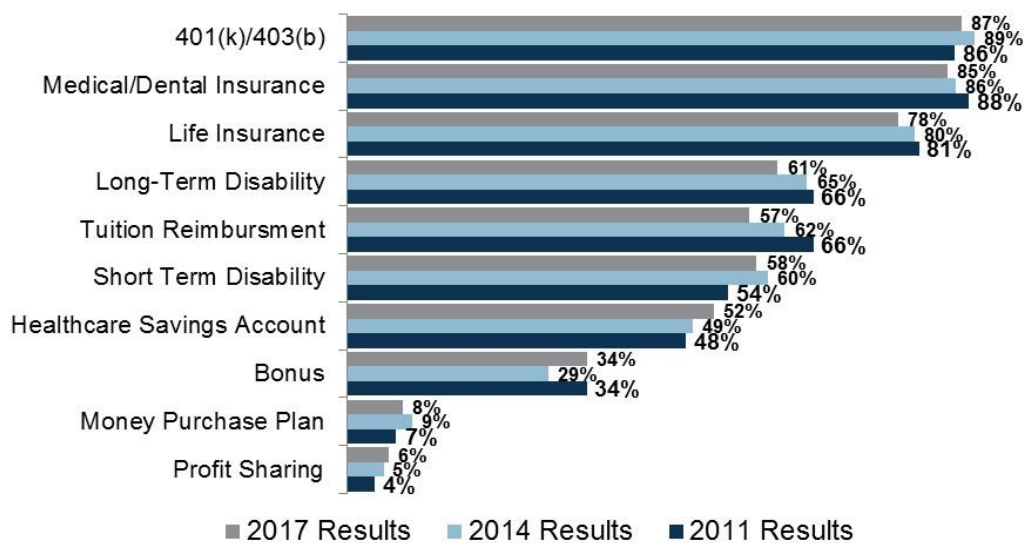
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Question asked for salary range only starting in 2017

Benefits

Nurse informaticists provided information surrounding the benefits offered through their employers. A 401(k) or 403(b) was the most identified benefit, reported by 87 percent of respondents followed by medical/dental insurance (85 percent). Life insurance is provided to 78 percent of respondents and nearly two-thirds (61 percent) receive long-term disability insurance. These numbers are similar to the 2014 results. In 2017, 34 percent of respondents reported that they received a bonus.

Benefits and Non-Salary Compensation



10. Conclusion

This year's results showed that the number of years of bedside clinical experience respondents had before becoming a nurse informaticist increased; 17 percent of respondents had between one and five years of clinical experience compared to 20 percent in 2014. Those with more than 11 years of clinical experience increased from 41 percent to 59 percent. This may indicate that more clinical experience may be required to become an informaticist or that experienced clinicians are moving into informatics roles. There was also an increase from 59 percent to 67 percent for those with five or more years of informatics experience. This may show a growth in the types of informatics roles and industry experience of those working in informatics.

Respondents highly rate their satisfaction with their current position and their career choice in informatics. Satisfaction with their choice of career in informatics was a 6.2 average rating while their current position has a 5.5 average rating. Both were similar to the 2014 ratings and indicate a higher level of satisfaction with their career in informatics than their current position.

Lack of administrative support (21 percent) and lack of staffing resources (13 percent) were identified as the top barriers nurse informaticists face. The least identified barrier was lack of technology (one percent). These data suggest that nurse informaticists may need to overcome operational and organizational challenges rather than technological ones in order to be most successful in their roles.

Respondents indicated that audio conferences/webinars (64 percent) and professional organizations (61 percent) were the most used sources for continuing education. Digital sources were the most used with 87 percent reporting use of these sources. In addition, the use of print journals has decreased substantially from 2014. Results may demonstrate that nurse informaticists are changing the approach they take to completing continuing education from sources such as traditional outlets to digital outlets like audio conferences, webinars and online course work. However, half of respondents still attend national conferences.

The specialty is reporting a variety of education, training and certification accomplishments that contribute to their careers. Over half (57 percent) have a post-graduate (Master's or PhD) degree in any field and 31 percent have a Master's or PhD in Informatics suggesting that nurse informaticists are gaining solid backgrounds and experience to bring to their positions. On-the-job training as the only source of informatics education decreased from 34 percent in 2014 to 28 percent in 2017.

Half of respondents hold informatics certification, similar to 2014. Half of the nurse informaticist respondents also indicated that they would be pursuing some type of certification within the next year. In addition, 40 percent of respondents moved into a new role with more responsibilities after achieving certification. As the respondents reported that the perceived value of certification was personal satisfaction and enhancing their credibility and marketability, their continued efforts in progressing their knowledge base may provide increased job satisfaction and the ability to find a role where they can excel.

11. About HIMSS and HIMSS North America

HIMSS is a global, cause-based, not-for-profit organization focused on better health through information technology (IT). HIMSS leads efforts to optimize health engagements and care outcomes using information technology. HIMSS, headquartered in Chicago, serves the global health IT community with additional offices in the United States, Europe, and Asia.

HIMSS North America, a business unit within HIMSS, positively transforms health and healthcare through the best use of information technology in the United States and Canada. As a cause-based non-profit, HIMSS North America provides thought leadership, community building, professional development, public policy, and events. HIMSS North America represents 64,000 individual members, 640 corporate members, and over 450 non-profit organizations. Thousands of volunteers work with HIMSS to improve the quality, cost-effectiveness, access, and value of healthcare through IT. Major initiatives within HIMSS North America include the HIMSS Annual Conference & Exhibition, National Health IT Week, HIMSS Innovation Center, HIMSS Interoperability Showcases™, HIMSS Health IT Value Suite, and ConCert by HIMSS™.

12. How to Cite This Study

Individuals are encouraged to cite this report and any accompanying graphics in printed matter, publications, or any other medium, as long as the information is attributed to the HIMSS 2017 Nursing Informatics Workforce Survey.

13. For More Information

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