

# Report of Findings from the 2014 Nurse Aide Job Analysis and Knowledge, Skill and Ability Study

National Council of State Boards of Nursing, Inc. (NCSBN®)

### Mission Statement

The National Council of State Boards of Nursing (NCSBN®) provides education, service and research through collaborative leadership to promote evidence-based regulatory excellence for patient safety and public protection.

Copyright ©2015 National Council of State Boards of Nursing, Inc. (NCSBN®)

All rights reserved. NCSBN®, NCLEX®, NCLEX-RN®, NCLEX-PN®, NNAAP®, MACE®, Nursys® and TERCAP® are registered trademarks of NCSBN and this document may not be used, reproduced or disseminated to any third party without written permission from NCSBN.

Permission is granted to boards of nursing to use or reproduce all or parts of this document for licensure related purposes only. Nonprofit education programs have permission to use or reproduce all or parts of this document for educational purposes only. Use or reproduction of this document for commercial or for-profit use is strictly prohibited. Any authorized reproduction of this document shall display the notice: "Copyright by the National Council of State Boards of Nursing, Inc. All rights reserved." Or, if a portion of the document is reproduced or incorporated in other materials, such written materials shall include the following credit: "Portions copyrighted by the National Council of State Boards of Nursing, Inc. All rights reserved."

Address inquiries in writing to NCSBN Permissions, 111 E. Wacker Drive, Suite 2900, Chicago, IL 60601-4277. Suggested Citation: National Council of State Boards of Nursing. (2015). Report of Findings from the 2014 Nurse Aide Job Analysis and Knowledge, Skill and Ability Study. Chicago: Author.

Printed in the United States of America

ISBN# 978-0-9903603-1-5

# **TABLE OF CONTENTS**

List of Tables	i
List of Figures	ii
Acknowledgments	v
Executive Summary	1
Background of Study	5
Methodology	5
Data Collection	5
SMEs	6
In-person SME Panel	6
Virtual Verification Panels	7
Internal Content Review	7
Summary	8
Demographics, Experiences and Practice Environments of Participants	9
In-person SME Panel	9
Virtual Verification Panel #1	10
Virtual Verification Panel #2	10
Summary of Demographics, Experiences and Work Environments of Participants	11
Conclusions	11
References	12
Appendix A: SME Panel Member Descriptions	13
Appendix B: 2014 NA Activity Statements	15
Appendix C: 2014 NA KSA Statements	18

# LIST OF TABLES

Table 1. Years Experience for In-person Panelists	9
Table 2. Licensure/Certification Held by In-person Panelists	9
Table 3. Current Work Setting for In-person Panelists	9
Table 4. Job Title for In-person Panelists	9
Table 5. Years Experience for Virtual Panel #1 Panelists	10
Table 6. Licensure/Certification Held by Virtual Panel #1 Panelists	10
Table 7. Current Work Setting for Virtual Panel #1 Panelists	10
Table 8. Job Title for Virtual Panel #1 Panelists	10
Table 9. Years Experience for Virtual Panel #2 Panelists	11
Table 10. Licensure/Certification Held by Virtual Panel #2 Panelists	11
Table 11. Current Work Setting for Virtual Panel #2 Panelists	11
Table 12. Job Title for Virtual Panel #2 Panelists	11
Table 13. Overall SME Representation by Jurisdiction	11

# **LIST OF FIGURES**

Figure 1. In-person Panel Participation by Gender	9
Figure 2. Race/Ethnicity of In-Person Panel Participants	9
Figure 3. Virtual Panel #1 Participation by Gender	10
Figure 4. Race/Ethnicity of Virtual Panel #1 Participants	10
Figure 5. Virtual Panel #2 Participation by Gender	10
Figure 6. Race/Ethnicity of Virtual Panel #2 Participants	11

### **ACKNOWLEDGMENTS**

This study would not have been possible without support from certified entry-level nurse aides (NAs) and their supervising nurses and educators from all parts of the U.S. The time and attention they spent participating in this study is greatly appreciated and the information they provided has increased our understanding of the work performed by NAs.

# EXECUTIVE SUMMARY Background of Study

The National Council of State Boards of Nursing (NCSBN®) is responsible for assisting its members, the boards of nursing in the U.S. and its member board territories, in the mission of public protection through safe nursing practice. Care provided by certified entry-level nurse aides/nursing assistants (NAs) (defined for this study as individuals, regardless of title, who assist with the delivery of direct nursing care to clients/patients/residents) directly impacts client safety and influences the quality of care provided by licensed nurses. As nursing practice changes, activities performed by NAs may change, and consequently, the knowledge, skills, and abilities required to perform those activities may change as well. Job analysis provides a means of identifying these changes.

### Methodology

A number of steps are necessary to perform an analysis of the work performed by certified entry-level NAs. A modified DACUM approach to job analysis was implemented to analyze the NA position at the entry-level. The 2014 Job Analysis and Knowledge, Skill and Ability (KSA) Study of NAs used several methods to describe the work of certified entry-level NAs in the U.S.: (1) document reviews, (2) the expert input of RNs, LPN/VNs, and certified entry-level NAs on the development of activity statements and KSA statements, and (3) verification of results via virtual expert panels and internal nurse expert content review.

In accordance with a modified DACUM approach, subject matter experts (SMEs) were incorporated throughout all phases of the job analysis process (Norton & Moser, 2008). Participants in the 2014 Job Analysis and KSA Study of NAs felt confident that the final lists of 113 activity statements and 201 KSA statements resulting from this study are representative of the work performed by certified entry-level NAs across their work settings.

# Demographics, Experiences and Work Environments of Participants

Overall, 24 SMEs participated in the study across all panel settings. SMEs represented 11 unique jurisdictions and consisted of experts who worked with and/or supervised the work of certified entry-level NAs within one year post certification, educated certified entry-level NAs, or were certified entry-level NAs themselves. Due to the entry-level nature of the position studied, SMEs representing the aforementioned backgrounds and degrees of experience were included throughout the process to further support the job analysis results and allow the study to focus on defining the work of NAs at the entry-level.

A panel of seven registered nurses (RNs) and four certified entry-level NAs assisted with the development of the activity statements and KSAs. Two virtual panels provided verification of the resulting job analysis information; the first virtual panel consisted of six RNs and two licensed practical/vocational nurses (LPN/VNs), while the second virtual panel was comprised of four RNs and one certified entry-level NA. Overall, panelists were ethnically diverse, represented all major work and practice settings where NAs are employed, and represented all four NCSBN geographic areas of NCSBN's constituents.

### Conclusions

The 2014 Job Analysis and KSA Study of NAs used several methods to describe the work of certified entry-level NAs in the U.S. The implementation of a modified DACUM job analysis methodology allowed NCSBN to target the study to investigate the work of NAs at the entry-level. Based on this evidence, the findings of this study can be used to evaluate and support the NA test plan.

Supervisors and SMEs) rated "airway management" and "medication error prevention" among the five most important knowledge statements. In terms of least important knowledge statements, all groups rated "phototherapy" among the five least important knowledge statements.

# Report of Findings from the 2014 Nurse Aide Job Analysis and Knowledge, Skill and Ability Study

National Council of State Boards of Nursing, Inc. (NCSBN®)

### **BACKGROUND OF STUDY**

The National Council of State Boards of Nursing (NCSBN®) is responsible to its members, the boards of nursing in the U.S. and its member board territories, for the preparation psychometrically sound and legally defensible licensure and certification examinations. The periodic performance of job analysis studies assists NCSBN in evaluating the validity of the test plan that guides content distribution of the certification examination. Furthermore, job analysis studies have long been recognized by measurement and testing professions as important sources of validity evidence for licensure examinations (AERA, APA, & NCME, 2014). Because the U.S. health care industry is rapidly changing, job analysis studies are traditionally conducted approximately every five years. The previous nurse aide job analysis was conducted in 2009.

The secondary purpose of this study is to identify the essential knowledge needed by certified entry-level NAs. These knowledge statements will help test developers of the National Nurse Aide Assessment Program (NNAAP®) better understand the knowledge necessary to perform NA activities safely and effectively. It will also help item writers and reviewers with test development activities related to the NNAAP. However, the knowledge statements will not be part of the NNAAP content outline. The previous nurse aide knowledge, skill and ability study was conducted in 2010.

This combined job analysis and knowledge, skill and ability study is the latest in a series of studies of NA professionals performed by NCSBN. Results of this study can also be used to assist education programs with having a better understanding of the knowledge requirements relevant to safe and effective work of certified entry-level NAs.

# Methodology

A number of steps are necessary to perform an analysis of the work of certified entry-level nurse aides (NAs). This section provides a description of the methodology used in to conduct the 2014 Nurse Aide Job Analysis and Knowledge, Skill and Ability (KSA) Study. In accordance with a modified DACUM

approach to job analysis, subject matter experts (SMEs) were incorporated throughout all phases of the job analysis process (Norton & Moser, 2008). Descriptions of data collection procedures, SME panel processes, and task verification procedures are provided.

### **Data Collection**

To initiate the data collection process and encourage participation in the job analysis and KSA study, NCSBN distributed email communication to all 25 jurisdictions using the National Nurse Aide Assessment Program (NNAAP®) examination at the time the study was conducted, and an additional 15 jurisdictions randomly selected from the pool of states that did not use the NNAAP examination, for a total of 40 jurisdictions.

The email communication was distributed to NA registry contacts for both client and non-client jurisdictions, which encouraged participation at the state level by contacting those individuals directly. The registry contacts were also asked to forward the request on to facilities in their jurisdiction to increase individual facility involvement in the study. Both the state contacts and the facilities who received the request were asked to provide NCSBN with:

- job descriptions, orientation agendas, and any other documentation from the practice setting that may serve as background data on the NA position, and
- recommendations for newly certified NAs with twelve months or less experience, expert NAs who work with newly certified NAs, and supervisory RNs and LPN/VNs who work with newly certified NAs to serve on in-person and virtual SME panels.

Eight jurisdictions recommended a total of 28 individuals to participate in the study, and four facilities, all representing unique jurisdictions, provided facility-specific information on the NA occupation. Recommended individuals were contacted via email and asked to fill out a background information form and confidentiality agreement. Of the individuals recommended, 13 SMEs were able to participate on the scheduled panels.

In addition to the background information provided by the four facilities, NCSBN reviewed information from the U.S. Department of Labor's Occupational Information Network, research literature collected through broad searches, and previous NCSBN NA job analysis and KSA study reports (O\*NET Online, 2013; NCSBN, 2009; NCSBN, 2010).

### **SMEs**

Three panels of SMEs were assembled to assist with the study. Traditional DACUM methodology relies on a panel of expert workers to define job tasks (Norton & Moser, 2008). Contradictory to a traditional DACUM job analysis, SMEs in the study consisted of experts who worked with and/or supervised the work of certified entry-level NAs within one year post certification, educated certified entry-level NAs, or were certified entry-level NAs themselves. Due to the entry-level nature of the position studied and time constraints, it was decided that the job analysis results would be strengthened by the participation of panels comprised of SMEs possessing various expert backgrounds, rather than time spent trying to identify specific "expert" certified entry-level NAs out of a very limited and likely subjectivelydefined population of such individuals.

A panel of seven registered nurses (RNs) and four certified entry-level NAs was assembled in person to assist with the development of the activity statements and KSAs. Two virtual panels were assembled to provide verification of the job analysis information that emerged from the in-person panel. The first virtual panel consisted of six RNs and two licensed practical/vocational nurses (LPN/VNs). The second virtual panel was comprised of four RNs and one certified entry-level NA. Due to time constraints, in-person panelists who met the criteria to participate were recruited from NCSBN's volunteer database. Overall, 13 individuals recommended by their jurisdiction or facility from the preceding data collection phase were represented on the virtual panels. See Appendix A for a description of SME background information.

Overall, panelists represented all four NCSBN geographic areas and all major work settings where NAs are employed. Demographic information for

each panel can be found in a latter section of this report.

### In-person SME Panel

The panel of SMEs convened in-person in Chicago, IL, on Sept. 15–17, 2014, performed several tasks crucial to the success of the job analysis study. Prior to the panel, SMEs were asked to be familiar with job descriptions, orientation and training materials, performance evaluations, and educational materials from their work settings. Using this information, as well as their own expert knowledge of certified entry-level NA work, the panel identified the category structure describing the types of activities performed by certified entry-level NAs. They were careful to review the current category structure to ensure that it was clear, understandable and logical.

Once the list of categories, or content areas, was confirmed by the panel, SMEs participated in a structured group discussion to identify trends in entry-level NA work since the previous job analysis conducted in 2009, in an effort to consider changes to the NA position. Following the modified DACUM approach, SMEs brainstormed the major duties performed by NAs as a group, and going one step further, identified and discussed any changes to the NA duties since the previous job analysis study was conducted (Norton & Moser, 2008). Based on the discussion, SMEs conveyed that the activities performed by NAs are congruent with the list of activity statements resulting from the 2009 job analysis study, which they reviewed prior to the brainstorming and discussion session. Although some minor modifications based in specific care settings and environments arose in the discussion, these modifications are not yet reflected in the range of authorized duties for NAs across jurisdictions and are largely based on processes specific to individual facilities.

Panel members then worked to create a list of activities performed by the certified entry-level NA. Based on the results of the preceding discussion, the final list of activity statements resulting from the 2009 Job Analysis of Nurse Aides Employed in Nursing Homes/Long-term Care, Hospitals/Acute Care and Community/Home Health Care Settings

was used as the basis for the development of the new activity statements (NCSBN, 2009).

The list of activity statements was grouped by content area to facilitate the review and discussion around major duty areas. SMEs were asked to note any gaps in the list of activity statements to address with the group. Each activity was reviewed for applicability to newly certified NA work and the relationship to the delivery of safe nursing care to members of the public. Care was taken to create the activity statements at approximately the same level of specificity and to avoid redundancy.

Out of the 113 activity statements resulting from the 2009 job analysis study, 22 activity statements underwent minor modifications at the in-person panel, such as the addition or deletion of accompanying examples, a change in terminology or generalization of the statement to apply across jurisdictions. Three activity statements were moved to a more appropriate category, three statements were deleted, and two statements were added. SMEs noted that the main concepts of the three deleted activity statements were covered by the two additions to the list of activity statements; therefore, no activities covered in the deleted statements were lost.

Although there were minor modifications to the activity statements, SMEs felt confident that the revised statements provided an accurate representation of the activities performed by certified entry-level NAs. SMEs finalized the list of activity statements, for a total of 112 statements following the in-person panel.

The final list of activity statements was used to develop the list of KSAs required of entry-level NAs. As a group, SMEs reviewed the activity statements one by one and developed a list of KSA statements associated with each specific activity statement. Following the panel, the list of KSAs was reviewed by an internal content expert to eliminate redundancy and spelling or phrasing errors, which resulted in a list of 206 KSA statements from the in-person panel.

### **Virtual Verification Panels**

Verification methodology for a DACUM job analysis varies widely, and inherently increases when a

modified DACUM approach is used. Although the DACUM methodology associated with Holland College does not support the need to verify job analysis results using the DACUM method, NCSBN established that the verification of results was essential due to the modified nature of the approach used (Norton & Moser, 2008).

NCSBN convened two virtual SME panels on Sept. 23 and 24, 2014. SMEs connected to a webinar where they reviewed information as a group and provided feedback to an NCSBN facilitator via teleconference. SMEs at the virtual verification panels reviewed the list of activity statements performed by certified entry-level NAs developed in the previous phase, and provided confirmation that the activities are performed by certified entry-level NAs in their jurisdictions.

At both virtual panels, activity statements were reviewed by each major content, or duty, area. The virtual panels discussed any activity statements that an SME noted as "not performed" by certified entry-level NAs in their facility. It was noted that although certain activities were not performed by entry-level NAs in specific facilities, it was found that each activity statement discussed during this portion of the panels was either documented in facility orientation and training materials, or taught during NA coursework in the jurisdiction, and was therefore representative of the range of authorized NA duties. Accordingly, all activity statements were retained following review by the virtual panels. SMEs proposed one additional activity statements to be added to the list to address a gap, for a total of 113 activity statements resulting from the virtual verification panels.

Virtual panelists also reviewed and further clarified the list of KSA statements resulting from the in-person panel. The virtual panels recommended adding five KSAs, as well as further reducing overlap. A total of 211 KSAs entered the phase following the virtual panels.

### **Internal Content Review**

In the final phase of the study and as an additional verification procedure, all proposed changes to activity statements were reviewed by an internal nurse expert to ensure that they were representative of the current range of authorized duties for certified entry-level NAs, as well as content valid. Following the nurse expert review, the final list of 113 activity statements was confirmed. See Appendix B for the final list of activity statements resulting from the study.

Recommended changes to the KSA statements were also reviewed by an internal nurse expert. Based on the recommendations of the virtual verification panels, the internal nurse expert approved the deletion of nine KSA statements to further eliminate redundancy. The nurse expert also approved the addition of the five KSAs recommended by the virtual verification panels, and an additional nine KSAs underwent minor edits to increase clarity and reduce overlap across statements. Following this review, the list of 201 KSA statements was finalized. See Appendix C for the final list of KSA statements.

### **Summary**

Participants in the 2014 Job Analysis and KSA Study of NAs felt confident that the activity statements are representative of the work performed by certified entry-level NAs in their work settings. By using a modified DACUM job analysis methodology, NCSBN was able to analyze the NA position at the entry-level. The minor modifications made to the activity statements that resulted from the previous 2009 job analysis study and the parallel nature of the 2014 activity statements support the validity of the results, and further support the job analysis information compiled on the certified entry-level NA position.

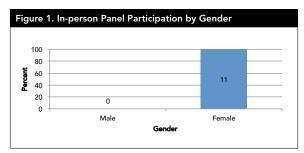
# DEMOGRAPHICS, EXPERIENCES AND PRACTICE ENVIRONMENTS OF PARTICIPANTS

### **Demographics/Past Experiences**

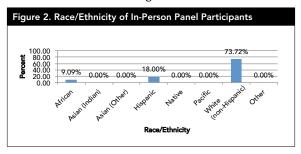
For each panel, demographic information, including gender and racial and ethnic backgrounds, are presented, followed by average years of experience, the license/certification held, current work settings and job titles.

### In-person SME Panel

At the in-person SME panel, 100% of participants reported being female. See Figure 1.



In-person panelists were ethnically diverse; panelists reported their race/ethnicity as follows: 73.72% White (non-Hispanic), 18% Hispanic, and 9.09% African-American. See Figure 2.



In addition to an average of 8.57 years of experience in their current job, experienced in-person panelists (n=7) had an average of 23.43 years of nursing experience. Certified entry-level NAs (n=4) had just over one half year of experience on average. See Table 1.

Table 1. Years Experience for In-person Panelists	
	Average Experience (in years)
Years in current job, experienced (n=7)	8.57
Years in current job, new NA (n=4)	0.57

The majority of in-person panelists possessed a RN license (63.43%) and 36.36% of panelists held an NA certification. See Table 2.

Table 2. Licensure/Certification Held by In-person Panelists		
License/Certification	Percent	
RN	63.64%	
LPN/VN	0.00%	
NA	36.36%	

The majority of in-person panelists indicated that they worked in a nursing home (63.64%) or other long-term care facility (27.27%). See Table 3.

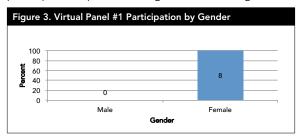
Table 3. Current Work Setting for In-person Panelists		
Work Setting	Percent	
Home health care	9.09%	
Hospital	9.09%	
Nursing home	63.64%	
Other long-term care	27.27%	

Panelists were asked to provide their current job title. Certified Nurse Aide, indicated by CNA in *Table 4* was the most common job title used by in-person panelists.

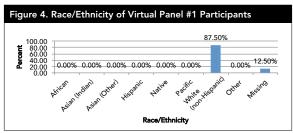
Table 4. Job Title for In-person Panelists	
Job Title	Percent
CNA	27.27%
Client Services Manager	9.09%
CNA Instructor	9.09%
Nurse Aide Program Instructor/Coordinator	9.09%
Wellness Director	9.09%
Director of Health Care Programs	9.09%
Staff Development Coordinator	9.09%
Nursing Home Training Program Director	9.09%
Administrator	9.09%
Consultant	9.09%
Staff Nurse	9.09%
Nurse Educator	9.09%
In-state Coordinator	9.09%

### Virtual Verification Panel #1

At the first virtual verification panel, 100% of participants reported being female. See Figure 3.



87.50% of panelists at the first virtual verification panel indicated their race/ethnicity as White (non-Hispanic) as shown in *Figure 4*. One panelist (12.50%) did not provide their race/ethnicity information.



In addition to an average of 6.52 years in their current job, panelists on the first virtual panel (n=8) had an average of 24.13 years of nursing experience. See Table 5.

Table 5. Years Experience for Virtual Panel #1 Panelists	
	Average Experience (in years)
Years in current job, experienced (n=7)	6.52

Most of the panelists on the first virtual panel held a RN license (75%), and while 25% possessed a LPN/VN license, as shown in *Table 6*.

Table 6. Licensure/Certification Held by Virtual Panel #1 Panelists	
License/Certification	Percent
RN	75.00%
LPN/VN	25.00%
NA	0.00%

The majority of panelists on the first virtual panel indicated that they worked in a nursing home (62.50%). Other panelists worked in home health

care (12.50%) and other long-term care (12.50%) settings. See Table 7.

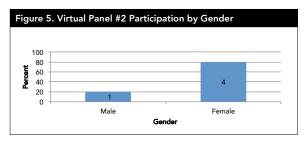
Table 7. Current Work Setting for Virtual Panel #1 Panelists	
Work Setting	Percent
Home health care	12.50%
Hospital	0.00%
Nursing home	62.50%
Other long-term care	12.50%
Missing	25.00%

Panelists were asked to provide their current job title. Panelists each provided a unique job title, which explains the identical percentage points across job titles, as shown in *Table 8*.

Table 8. Job Title for Virtual Panel #1 Panelists		
Job Title	Percent	
Nurse Aide Training Coordinator	12.50%	
Nurse Aide Training Instructor	12.50%	
Aide Education & Training Program Manager	12.50%	
Division Director - Healthcare Education & Quality	12.50%	
Director of Training Center	12.50%	
Program Director 12.50%		
Director of Education	12.50%	
Manager/Coordinator/Primary Instructor	12.50%	

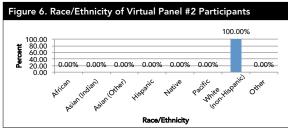
### Virtual Verification Panel #2

At the second virtual panel, 80% of panelists reported being female, and 20% of panelists indicated male. See Figure 5.



All panelists on the second virtual panel indicated their race/ethnicity as White (non-Hispanic) as shown in *Figure 6*.

There was one certified entry-level NA on the second virtual panel who had just reached one year on the job. The four experienced panelists at the second virtual panel had an average of 12.75 years



in their current jobs, as well as an average of 35.00 years of nursing experience. See Table 9.

Table 9. Years Experience for Virtual Panel #2 Panelists	
	Average Experience (in years)
Years in current job, experienced (n=7)	12.75
Years in current job, new NA (n=4)	1.00

The majority of panelists at the second virtual panel held RN licenses (80%), while one panelist at the second virtual panel held a NA certification (20%) See Table 10.

Table 10. Licensure/Certification Held by Virtual Panel #2 Panelists	
License/Certification	Percent
RN	80.00%
LPN/VN	0.00%
NA	20.00%

Equal percentages of panelists indicated that they work in hospital (40%) and nursing home (40%) settings. 20% indicated they work in other long-term care facilities. See Table 11.

Table 11. Current Work Setting for Virtual Panel #2 Panelists	
Work Setting Percent	
Home health care	0.00%
Hospital	40.00%
Nursing home	40.00%
Other long-term care	20.00%
Missing	20.00%

As illustrated by the percentage of virtual panel participants associated with each job title as shown in *Table 12*, all panelists at the second virtual panel had unique job titles.

Table 12. Job Title for Virtual Panel #2 Panelists	
Job Title Per	
CNA	20.00%
CNA Instructor	20.00%
Nursing Assistant Registry Coordinator	20.00%
Nursing Assistant Faculty	20.00%
Program Coordinator, NA Training Program	20.00%

# Summary of Demographics, Experiences and Work Environments of Participants

Overall, 24 SMEs participated across all panel settings. They represented 11 unique jurisdictions as shown in *Table 13*.

Table 13. Overall SME Representation by Jurisdiction	
Jurisdiction	Percent
FL	4.17%
GA	12.50%
IN	8.33%
MI	8.33%
MN	12.50%
MS	4.17%
NC	8.33%
PA	8.33%
TX	16.67%
VA	4.17%
WY	8.33%

### **Conclusions**

The 2014 Job Analysis and KSA Study of NAs used several methods to describe the work of certified entry-level NAs in the U.S.: (1) document reviews, (2) the expert input of RNs, LPN/VNs, and certified entry-level NAs on the development of activity statements and KSA statements, and (3) verification of results via virtual expert panels and internal nurse expert content review. The implementation of a modified DACUM job analysis methodology allowed NCSBN to target the study to investigate the work of NAs at the entry-level. Based on the evidence reported here and the expert opinion garnered through previous phases of this study, the range of authorized duties for NAs is comparable to the activities previously performed by NAs, the findings of this study can be used to evaluate and support the NA test plan.

# 12 REFERENCES

### **REFERENCES**

- American Educational Research Association, American Psychological Association, and National Council on Measurement in Education. (2014). *The Standards for Educational and Psychological Testing*. Washington, D.C.: American Educational Research Association.
- Cronbach, L. J. (1951). Coefficient Alpha and the Internal Structure of Tests. Psychometrika, (16), 297-334.
- National Council of State Boards of Nursing. (2009). Report of findings from the 2009 job analysis of nurse aides: Employed in nursing homes/long-term care, hospitals/acute care and community/home health care settings. Chicago: NCSBN.
- National Council of State Boards of Nursing. (2010). 2010 Knowledge survey of nurse aides employed in nursing homes/long-term care, hospitals/acute care and community/home health care settings. Chicago: NCSBN.
- Norton, R.E., & Moser, J. R. (2008). *DACUM Handbook* (3rd ed.). Columbus, OH: Center on Education and Training for Employment, The Ohio State University.
- O\*Net Online. (2013). Summary report for 31-1014.00 nursing assistants. In O\*Net online. Retrieved from http://www.onetonline.org/link/summary/31-1014.00

### APPENDIX A: SME PANEL MEMBER DESCRIPTIONS

### **SME Panel Member Descriptions**

### In-Person Panel Participants

#### Area

Two SMEs from Area I participated at the in-person panel from Wyoming.

- One SME works in two capacities, as a Staff Nurse and as a Nurse Educator. She has worked in her current position for 14 years, and has
  worked in the field of nursing for 15 years. She is an RN, and her current work facility is a nursing home. She holds a master's degree in
  nursing.
- A second SME is a certified entry-level NA who has been working as an NA for approximately three and a half months. She currently
  works in a hospital setting.

#### Area II

Two SMEs from Area II participated at the in-person panel. Both panelists were from Michigan.

- One SME works as a NA Coordinator/Educator, as well as a Wellness Director. She's an RN who has been in her current job for six years, and in the field of nursing for 30 years. She currently works in a long-term care facility, and holds a degree from a non-nursing baccalaureate program.
- The other Area II SME has been working as a certified entry-level NA for one and a half years. She currently works in a nursing home and other long-term care facility.

#### Area III

Five SMEs represented Area III at the in-person panel from the jurisdictions of Georgia, Mississippi and Texas.

- One SME works as a NA Instructor in Georgia. She's been in her current job for eight years, and in nursing for approximately 36 years.
   She's an RN and also currently works in a nursing home facility.
- The SME from Mississippi works as both an Administrator and a Consultant. She has worked in her current job for 22 years, and has worked in the field of nursing for 34 years. She is an RN and noted that her current practice settings are in rehabilitation, sub-acute, and one other not specified.
- A Texas SME is an RN who has worked in her position as the Director of Health Care Programs for approximately five years, although she has been in the field of nursing for 26 years. Her current facility is a nursing home, and she holds a master's degree in nursing.
- A second SME from Texas has worked in her position as Nursing Home Training Program Director for approximately one year, but has
  worked in nursing for 15 years in total. She's an RN in a nursing home facility, and completed her associate degree in nursing.
- A third Texas SME is a certified entry-level NA who has worked as an NA for approximately two months. She currently works in a rehabilitation setting within a long-term care facility.

### Area IV

Two SMEs represented Area IV from Pennsylvania.

- One SME works as a Staff Development Coordinator at a nursing home. She is an RN who has been working in her current position for
  four years, and has been in the field of nursing for eight years. She completed her associate degree in nursing.
- A second Area IV SME has worked as a certified entry-level NA for approximately four months in a home health care setting. She completed a non-nursing baccalaureate program.

### Virtual Verification Panel #1 Participants

### Area I

Three SMEs from Area II participated in the first virtual verification panel. They represented the jurisdictions of Indiana and Minnesota.

- One SME from Indiana is an RN who currently works as a Nurse Aide Education & Training Program Manager. She has been in this position for approximately five years, and has worked in nursing for 33 years overall. She received her baccalaureate degree in nursing.
- A second SME from Indiana works as a Division Director of Healthcare Education and Quality. She's been in her current position for two
  years, but she has worked in the field of nursing for over five years. She is an RN and has completed her master's degree in nursing.
- The SME from Minnesota has worked in her current position as Director of Training Center at a nursing home for 10 years. She is an RN who has worked in the field of nursing for 43 years.

### Area III

Three SMEs from Area II participated in the first virtual verification panel. They represented the jurisdictions of Indiana and Minnesota.

- A SME from Georgia has worked as a Nurse Aide Training Coordinator for the past eight years. She is an LPN/VN who has worked in
  the field of nursing for 31 years overall. She currently works in the rehabilitation and sub-acute units within a nursing home and other
  long-term care facility.
- A second SME from Georgia has worked in her position as a Nurse Aide Training Instructor for eight years. She's an LPN/VN who has
  worked in the field of nursing for 25 years, and currently practices in medical-surgical, rehabilitation, and sub-acute settings.
- The North Carolina SME has served in her position as a Program Director within a home health care facility for approximately seven years. She is an RN who has worked in nursing for 19 years.
- The SME from Texas has worked in her current position as Director of Education for less than one year. She is an RN who has worked in nursing for 18 years, and noted that she works in a nursing home facility.
- A Virginia SME works as a Manager/Coordinator/Primary Instructor, and has served in this capacity for 12 years. She is an RN who has
  worked in nursing for 19 years overall and noted that she works in a nursing home facility. She holds her master's degree in nursing.

### **SME Panel Member Descriptions**

### Virtual Verification Panel #2 Participants

#### Area II

Two SMEs from Area II participated in the second virtual verification panel representing Minnesota.

- One SME has served in her position as the NA Registry Coordinator for approximately 32 years. She is an RN who has been working in the field of nursing for 37 years in total.
- The other SME works as Nursing Assistant Faculty and has been in this position for 11 years. She is an RN with 41 years of experience in nursing.

#### Area III

The second virtual verification panel consisted of three SMEs from Area III representing Florida, Georgia and North Carolina.

- The SME from Florida has worked as a NA Instructor for six years. She is an RN and has 33 years of experience in nursing, and noted that she works in hospital and nursing home facilities. She completed a non-nursing master's degree.
- A Georgia SME is a certified entry-level NA. She's been in her current position for approximately one year, and works in a nursing home facility.
- A North Carolina SME has worked as a Program Coordinator for a NA training program for two years. He is an RN with 29 years of nursing experience, and currently works in a hospital setting. He completed a baccalaureate degree in nursing.

# **APPENDIX B: 2014 NA ACTIVITY STATEMENTS**

2014 NA Activity Statements		
Activity #	Activity Statement	
1	Provide foot care	
2	Provide oral/mouth/denture care (conscious, unconscious)	
3	Provide shower/bath (e.g., partial, whirlpool, bed bath)	
4	Provide pericare (continent/incontinent)	
5	Provide hand/nail care	
6	Assist client with dressing and undressing (e.g., full range of motion, limited range of motion)	
7	Assist with grooming needs (e.g., shaving, hair care, cosmetics)	
8	Assist with meal set-up	
9	Assist with supplemental nutrition (e.g., nutritional drinks, snacks)	
10	Feed client who cannot feed self	
11	Identify special diets (e.g., low sodium, pureed, diabetic, thickened liquids)	
12	Provide client with fluids	
13	Confirm client receives correct diet	
14	Provide incontinence care	
15	Provide for toileting needs (e.g., bedpan, bedside commode, toilet)	
16	Assist client with proper body alignment and positioning	
17	Provide physical comfort measures (e.g., back rubs, hot/cold compress, sitz bath)	
18	Follow infection control guidelines (e.g., Standard/Universal precautions, handwashing, personal protective equipment [PPE], isolation guidelines)	
19	Identify biohazardous waste and dispose of properly	
20	Keep client's area clean and neat	
21	Apply and respond to client safety alarms (e.g., call light within reach, bed/chair alarms)	
22	Clear foreign-body airway obstruction (FBAO)	
23	Follow oxygen safety guidelines (e.g., no smoking)	
24	Identify client before providing each service/care	
25	Assist with emergency procedures	
26	Prevent and provide protection from injuries (e.g., seizure precautions, aspiration precautions, fall precautions)	
27	Respond to actual/potential emergency or disaster situations per protocol	
28	Use proper body mechanics	
29	Use equipment properly (e.g., report malfunctions)	
30	Answer call light promptly	
31	Apply and monitor restraints	
32	Apply and remove anti-embolism hose	
33	Assist client with turning, coughing and deep breathing	
34	Assist nurse with dressing change	
35	Care for body after death	
36	Check client status routinely during shift	
37	Make bed (e.g., occupied, unoccupied)	
38	Observe client for color, movement and sensation	

2014 NA Ac	tivity Statements
Activity #	Activity Statement
39	Provide care for the client with a sensory impairment (e.g., hearing, vision, speech)
40	Provide client specific care
41	Assist with ostomy care (e.g., emptying collection device)
42	Provide preventive skin care (e.g., observing for breakdown, specialty mattresses/devices, float/off-load heels, apply elbow protectors)
43	Provide urinary catheter care
44	Transport client (e.g., off unit or to another setting)
45	Transfer client using assistive devices (e.g., gait/transfer belts, mechanical lifts, sliding boards)
46	Assist with collection and labelling of stool, urine or sputum specimens
47	Estimate and record amount/percentage of meal intake
48	Measure and record client's weight and/or height (e.g., standing, lying)
49	Measure and record intake and output
50	Observe and report signs and symptoms of pain
51	Perform and record pulse oximetry
52	Recognize and report signs and symptoms of client's changing condition
53	Take and record client's vital signs (VS)
54	Assist client to ambulate with a device (e.g., cane, walker, crutches)
55	Assist client with ambulating
56	Perform passive or active assisted range of motion exercises
57	Assist client in bowel and/or bladder training
58	Allow client to do things at his/her own pace
59	Assist client with recreational activities
60	Assist client with maintenance of personal equipment (e.g., splints, prosthetics, dentures)
61	Assist client with the application and removal of prosthetic and orthotic devices
62	Assist or encourage family involvement in client's care
63	Encourage client and family to contribute to and follow plan of care
64	Encourage client to be independent
65	Provide individualized care based on client's preference and schedule
66	Assist client to participate in groups and other activities
67	Assist client with issues related to death and dying
68	Identify behaviors commonly related to a client with cognitive impairment (e.g., Dementia)
69	Implement strategies to care for the angry or potentially violent client
70	Implement strategies to care for the client with cognitive impairment (e.g., Dementia)
71	Participate in client's behavior modification program
72	Promote client self-esteem and dignity (e.g., address client by preferred title and name)
73	Promote client's feeling of acceptance
74	Promote client's feeling of security
75	Provide a client-centered environment
76	Provide client assistance in resolving grievances and disputes
77	Provide comfort and care for dying client
	The state of the same of the s

2014 NA Act	tivity Statements
Activity #	Activity Statement
78	Provide emotional support
79	Recognize and report signs that client might be a danger to themselves or others (e.g., depressed, suicidal, self harm)
80	Use reality orientation (e.g., time, place, person)
81	Use validation therapy
82	Report client's cultural/religious/spiritual preferences and needs (e.g., food, clergy)
83	Respect client's religious and cultural beliefs and practices
84	Document or record information accurately
85	Identify and report barriers to communication
86	Observe and report behavioral changes
87	Recognize the need for an interpreter
88	Reinforce client and family education
89	Use active listening skills
90	Use approved medical terminology in written and verbal communication
91	Use courtesy in communication
92	Follow client's plan of care
93	Follow privacy and confidentiality regulations (e.g., Health Insurance Portability and Accountability Act [HIPAA])
94	Identify self to client by name and job title
95	Provide explanation of care to client
96	Respect and maintain security of client's personal belongings
97	Respect client's need for privacy/confidentiality
98	Respect client's personal choices, including advanced directives
99	Promote client's right to be free of restraints
100	Respect client's right to refuse care
101	Promote client's right to be free of abuse, neglect or financial exploitation
102	Advocate for client's rights
103	Provide client care in an ethical and professional manner
104	Report and record unusual incidents involving clients, visitors or any persons on site (e.g., errors, injuries, falls)
105	Accept and complete authorized duties
106	Ask for help when needed
107	Assist co-workers
108	Assist with admission, discharge and transfer
109	Attend and participate in staff education
110	Participate in shift reports
111	Participate in performance improvement and cost containment programs
112	Suggest additions or needed changes to client's plan of care to health care team
113	Use identified channels/chain of command to voice questions, concerns, suggestions or complaints

# **APPENDIX C: 2014 NA KSA STATEMENTS**

2014 NA KS	A Statements
KSA #	KSA Statement
1	Ability to recognize emergency or disaster situations
2	Active listening skills
3	Admission, discharge and transfer procedures
4	Advanced directives
5	Alternative methods of communication
6	Alternatives to restraints
7	Anatomy and physiology
8	Anatomy-specific procedures for providing incontinence care
9	Anatomy-specific procedures for providing pericare
10	Approved abbreviations
11	Aspiration precautions
12	Assistive devices and equipment
13	Assistive eating devices
14	Authorized duties
15	Available resources
16	Barriers to communication
17	Basic mathematical conversions
18	Behavior modification techniques
19	Behaviors associated with cognitive impairment
20	Biohazardous waste
21	Biohazardous waste disposal procedures
22	Body mechanics
23	Care of anti-embolism hose
24	Chain of command
25	Cleaning and storage of equipment
26	Client allergies
27	Client comfort measures
28	Client dignity
29	Client history
30	Client identification procedures
31	Client independence
32	Client positioning
33	Client preferences
34	Client privacy and confidentiality
35	Client rights
36	Client specific care
37	Client's developmental stages
38	Client's level of independence
39	Client's plan of care

2014 NA KS	SA Statements
KSA #	KSA Statement
40	Client's right to privacy
41	Client's right to refuse care
42	Client's role as a member of the care team
43	Conflict resolution techniques
44	Cost containment programs
45	Crisis prevention techniques
46	Cultural/religious/spiritual considerations
47	Descriptive terms for pain
48	Disinfection techniques
49	Documentation systems
50	Dying process
51	Emotional support techniques
52	Environmental triggers
53	Equipment disposal procedures
54	Equipment function and maintenance
55	Explaining procedure
56	Grieving process
57	Hand hygiene techniques
58	HIPAA
59	Inappropriate disclosure of client information (e.g., social media, use of personal cellular devices)
60	Indications for equipment use
61	Infection control
62	Infection transmission
63	Isolation precautions and procedures
64	Legal and ethical considerations
65	Linen handling procedures
66	Location of emergency equipment
67	Lock out/tag out equipment procedures
68	Maintaining safe delivery of oxygen
69	Maslow's hierarchy of needs
70	Medical terminology
71	Methods of observation
72	Methods to identify personal equipment
73	Needed supplies
74	Nonverbal communication skills
75	Nonverbal signs and symptoms of pain
76	Normal and abnormal hair appearance
77	Normal and abnormal mouth appearance
78	Normal and abnormal nail appearance

2014 NA KS	A Statements
KSA #	KSA Statement
79	Normal and abnormal skin appearance
80	Normal range for pulse oximetry
81	Normal range for vital signs
82	Nurse aide care procedures
83	Nurse aide role as a member of the healthcare team
84	Nurse aide role within the nursing process
85	OBRA
86	Observing and reporting changes in conditions and behaviors
87	Pain scale
88	Performance improvement
89	Procedure for denture care
90	Procedure for disposing of used incontinence products
91	Procedure for documenting and reporting
92	Procedure for initiating emergency response
93	Procedure for meal set-up
94	Procedure for mouth care
95	Procedure for postmortem care
96	Procedure for preparing client for meals
97	Procedure for providing client nutrition
98	Procedure for providing fluids
99	Procedure for reporting incidents
100	Procedure for resolving grievances and disputes
101	Procedure for taking vital signs
102	Procedure for thickening liquids at various consistencies
103	Procedure for turning, coughing and deep breathing
104	Procedure for use of assistive devices
105	Procedure to assist with ambulation
106	Procedure to clear a foreign body airway obstruction
107	Procedure to confirm dietary information
108	Procedure to maintain and empty urinary drainage system
109	Procedure to measure client's weight and/or height
110	Procedure to measure intake and output
111	Procedure to measure pulse oximetry
112	Procedure to perform range of motion exercises
113	Procedures for bed making
114	Procedures for collecting and labeling specimens
115	Procedures for disinfection of equipment
116	Procedures for dressing and undressing
117	Procedures for foot care

2014 NA KSA Statements		
KSA #	KSA Statement	
118	Procedures for grooming	
119	Procedures for hand care	
120	Procedures for nail care	
121	Procedures for ostomy care	
122	Procedures for preventing the spread of infection	
123	Procedures for providing and receiving shift reports	
124	Procedures for providing physical comfort measures	
125	Procedures for shower/bath	
126	Procedures for transporting clients	
127	Procedures for voicing questions, concerns, suggestions or complaints	
128	Procedures to apply and remove prosthetic and orthotic devices	
129	Procedures to care for prosthetic and orthotic devices	
130	Procedures to inventory and label client's personal belongings	
131	Procedures to provide preventative skin care	
132	Procedures to provide urinary catheter care	
133	Professional and ethical behavior	
134	Professional boundaries	
135	Promoting a safe emotional environment	
136	Proper application and removal of anti-embolism hose	
137	Proper use of equipment	
138	Proper use of restraints	
139	Providing and maintaining a safe environment	
140	Purpose and limitations of reality orientation	
141	Purpose and limitations of validation therapy	
142	Purposes of client safety alarms	
143	Range of motion	
144	Reality orientation techniques	
145	Recognizing client need for emergency assistance	
146	Redirection techniques	
147	Relationship building techniques	
148	Reporting abnormal findings	
149	Reporting and documenting	
150	Reporting change in client conditions	
151	Reporting findings	
152	Reporting findings and discrepancies	
153	Response procedures for actual/potential emergency situations	
154	Restraints	
155	Risk factors for skin breakdown	
156	Role of hospice and palliative care	

2014 NA K	SA Statements
KSA #	KSA Statement
157	Roles of members of the healthcare team
158	Safe food handling techniques
159	Safe transfer techniques
160	Safe transfers
161	Safety precautions and procedures
162	Security procedures
163	Sensory impairments
164	Signs and symptoms of adema
165	Signs and symptoms of dehydration
166	Signs and symptoms of emotional distress
167	Signs and symptoms of foreign-body airway obstruction
168	Special dietary requirements and restrictions
169	Specialty bed equipment
170	Specimen storage and transport procedures
171	Stress management techniques
172	Swallowing precautions
173	Teamwork
174	Techniques to promote a feeling of acceptance
175	Techniques to promote self esteem and dignity
176	Therapeutic touch
177	Time management skills
178	Toileting procedures
179	Transferring devices
180	Types of abuse, neglect and financial exploitation
181	Types of anti-embolism hose
182	Types of cognitive impairment
183	Types of intake and output
184	Types of ostomies
185	Types of restraints
186	Types of sensory impairments
187	Types of specimens
188	Types of urinary catheters
189	Use and storage of equipment
190	Use of grooming equipment
191	Use of incontinence care products
192	Use of positioning devices
193	Use, care and storage of personal equipment
194	Use, storage and transport of oxygen equipment
195	Validation therapy techniques

2014 NA KSA Statements		
KSA #	KSA Statement	
196	Verbal communication skills	
197	Waste disposal procedures	
198	Water temperature safety	
199	Ways the environment may impact communication	
200	Ways to promote participation in recreational activities	
201	Written communication skills	

# National Council of State Boards of Nursing

111 E. Wacker Drive, Suite 2900 Chicago, IL 60601-4277 312.525.3600 312.279.1032 fax www.ncsbn.org