THE EVALUTION OF THE IMPLEMENTATION OF NURSE DELEGATION IN WASHINGTON STATE

FINAL REPORT

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TABLE OF CONTENTS

I. BACKGROUND AND SIGNIFICANCE 1
A. House Bill 1908 .... *1*
B. Literature review *2*

II. GENERAL APPROACH 2
A. Development of design, working groups *2*
B. Human Subjects *3*

III. DATA SETS 3
A. Focused, In-Depth Interviews *4*
B. Questionnaires *7*
C. Document Review *8*

IV. RESULTS 12
A. Implementation of Nurse Delegation: Prevalence *12*
B. Summary of General Findings *14*
C. Patient, nurse, and nursing assistant satisfaction *15*
D. Medication errors, including those resulting in hospitalization *17*
E. Compliance with required training *18*
F. Compliance with nurse delegation protocols *19*
G. Incidence of harm to patients, including abuse and neglect *19*
H. Impact on access to care *20*
I. Impact on patient quality of life *20*
J. Incidence of coercion in the nurse-delegation process *21*
K. Additional findings *22*

V. IMPLICATIONS AND LIMITATIONS 22
A. Implications *22*
B. Limitations of the Study *23*

APPENDICES 25
Appendix A-1: Variables and Measures *25*
Appendix A-2: Data Sets *26*
Appendix B. Methods *27*
Appendix C. Results – Tables *31*

REFERENCES 50

I. BACKGROUND AND SIGNIFICANCE

This study was mandated by the 1995 Washington State Legislature in House Bill 1908, Section 53 and was approved by the Nurse Delegation Legislative Oversight Committee on May 21, 1996. Data from this study will be used to inform decision and policy making regarding nurse delegation in the future and will contribute to knowledge of the impact of changes in the nurse practice act and practice guidelines in selected residential settings.

Nurse delegation is occurring all over the United States, yet no systematic evaluation of the implications of this change in nursing practice has been undertaken. Nurse Delegation has major implications for nursing practice in the state of Washington and across the nation. Furthermore, the delivery of long term care and services is of critical importance to citizens of Washington state, as it is estimated that by the year 2,000 we will have almost 500,000 community-dwelling persons needing long term care, at the same time as the availability of family care providers is diminishing. Costs associated with long term care are of critical importance to our state budget and to the Department of Social and Health Services and the Department of Health as allocation decisions are made. House Bill 1908 brings about reform to our long term care system, favoring services in less restrictive, lower cost settings. Evaluation of this policy change is in the interest of those who administer long term care services, providers of services, and consumers of services. This study provides detailed information from a variety of sources that can be used as a basis for evaluating policy and may serve as a foundation for further, more extensive evaluation.

A. House Bill 1908

House Bill 1908, Section 53, outlined specific guidelines for the study of nurse delegation, stating that the study shall include consideration of the protection of health and safety of persons with developmental disabilities and consumers living in adult family homes and boarding homes providing assisted living services, including the appropriateness of the tasks allowed for delegation, level and type of training and regulation of nursing assistants. The study shall include direct observation, documentation, and interviews, and shall include data on the following:

1) Patient, nurse, and nursing assistant satisfaction
2) Medication errors, including those resulting in hospitalization
3) Compliance with required training
4) Compliance with nurse delegation protocols
5) Incidence of harm to patients, including abuse and neglect
6) Impact on access to care
7) Impact on patient quality of life
8) Incidence of coercion in the nurse-delegation process

B. Literature review

Nurse delegation has been discussed most often in the literature in relation to the utilization of unlicensed assistive personnel (UAP) in hospital and acute care settings (Krainovich-Miller, Sedhom, Bidwell-Cerone, Campbell-Heider, Malinski, and Carter, 1997). The American Nurses Association (1996) described trends in the utilization of unlicensed assistive personnel, and guidelines for utilization, preparation and regulation of UAPs in acute care facilities, nursing homes and home health agencies. Only rarely has nurse delegation in community based care settings been addressed in the literature (Just, DeYoung and Van Dyk, 1995; Brent, 1993 and Harris, 1993).

Nurse delegation is occurring in varying degrees in a number of the fifty states. In a recent study, Kane, O'Connor and Baker (1995) documented the nature and complexity of delegation in all states. Washington was one of the early states to begin this process. Evaluation of nurse delegation has not been done in a systematic way. Anecdotal evidence indicates that there are both benefits and risks associated with nurse delegation. Given the complexity of assessing nursing practice in a variety of settings with different contextual factors, it is not surprising that conclusive results were hard to find. This study captures a unique opportunity to conduct a careful evaluation of a number of issues of potential interest to consumers, professionals, providers, and state agencies.

II. GENERAL APPROACH

A. Development of design, working groups

This study was designed and implemented as a collaboration of representatives from the Department of Social and Health Services, the Department of Health, the Department of Developmental Disabilities, the Nursing Quality Assurance Commission, and the University of Washington School of Nursing, under the leadership of the Department of Health.

A work group of approximately 40 interested parties were convened by the Department of Health in late 1995 to provide input in all aspect of implementation of nurse delegation, including having input on this study. The goal of this study was to gather information about nurse delegation that addresses the mandate and can inform policy and ensure that high quality, cost effective care is delivered to persons in our state.

The work group met and there was a discussion of potential research approaches and constituent priorities. A draft design was developed by the University of Washington School of Nursing faculty team and was presented to the work group. Based on feedback, revisions were made and suggestions incorporated resulting in the design used for this study.

B. Human Subjects

Full Human Subjects approval was sought and obtained from both the Human Subjects Research Review Boards of the Department of Social and Health Services and the University of Washington. All procedures, consent forms, and instruments were reviewed and approved by the DSHS Review Board.

III. DATA SETS

The project was a descriptive study using a variety of methods including observation, interviews, surveys, and document review. Eight dependent variables were outlined in House Bill 1908, and are summarized with the appropriate measures used in Appendix A. Both quantitative and qualitative data sources were used, as appropriate to address the research questions. Existing data collected by the departments were used to the extent possible. Surveys, observations, and interviews were additional data collection methods.

It was assumed that it was not possible to describe "cause and effect," nor was it realistic to expect findings that were generalizable to other settings. The research problem was one about which there was little information, was highly contextual, and was being examined during a time when other changes in the health care system may also have effects on patient well-being, nursing practice, and provider issues. Many potential participants did not have the ability to respond to pencil and paper surveys effectively and accurately. For these major reasons, qualitative methods were indicated in addition to the surveys and analysis of quantitative data to obtain a more detailed understanding of the effects of Nurse Delegation.

Methods were selected that incorporate multiple sources of data and several methodological approaches in order to obtain the strongest representation of information (see Appendix B). There was more than one source of data for many of the variables studied. For example, nurse satisfaction was examined by the Readiness to Implement/Satisfaction Questionnaire as well as during focused interviews. Compliance with Nurse Delegation Protocols was examined from a variety of sources, including the focused interviews, the Nurse Delegation documentation required by the departments, complaints to the hot-line, and surveyor observations. The benefit of multiple data sources was that findings could be confirmed by seeing similar results from independent sources and further exploration could be suggested by unusual findings. By conducting the focused interviews in a variety of sites, it was possible to document characteristics of each setting, identifying factors that might influence the overall findings.

Three major approaches were taken in this study: 1) Focused, in-depth interviews; 2) Questionnaires; and, 3) Document Review.

A. Focused, In-Depth Interviews

1. Focused interviews

Focused interviews were conducted in the three settings where Nurse Delegation occurred (community residential programs for persons with developmental disabilities (DD settings), Adult Family Homes (AFH), and Assisted Living Boarding Homes (AL)). Facilities were categorized in cells according to intensity of nurse delegation, frequency of delegation and geographical location and were randomly selected from these cells for inclusion in the study. Once a facility was selected, the operator was contacted requesting participation in the study. When permission was obtained, consumers in that facility receiving delegation were selected for focused interviews and invited to participate. Caregivers associated with each consumer were invited to participate (nursing assistant doing delegated task, RN who delegated task, case manager, operator of the facility, family member or durable power of attorney of consumer).

The unit of analysis was the delegated task. By interviewing all involved in nurse delegation around a selected task, this approach allowed multiple perspectives on the same task to be explored. A total of 20 cases were studied, with 78 in-depth interviews conducted in the three settings among consumers, families, nurses, nursing assistants, providers/owners, and case managers. The results of the focused interviews are presented in Appendix C, Part A-1.

a. Distribution of focused interviews

Sample by Region and Site

Region	Adult family home	Assisted Living	DD Settings	Total
1	1	2	1	4
2	1	1	1	3
3	3	0	1	4
4	1	1	3	5
5	1	0	1	2
6	0	1	1	2
Total	7	5	8	20

Focused Interviews by Participant Type and Site

	Adult Family Homes	Assisted Living	DD settings	Total
RNs	6*	5	6	17*
NAs	6	5	7	18
Consumers or Family Proxy	7	5	4	16
Provider	7*	5	8	19*
Case Manager	2	0	6	8
Total	27	20	31	78

*One provider is also the RN for the home

b. Participants

Consumer Characteristics

Respondent	#	%
Self	9	56
Parent	2	13
Spouse	1	6
Daughter	2	13
Sibling	1	6
Guardian	1	6

Average time in facility: 1290 days (3.5 years), range 194 - 3850 days (.5 year - 10.5 years)

Assistance with Activities of Daily Living (ADL's)	**Number**	**Percent**
Bathing – total assist	8	50
Dressing – total assist	8	50
Feeding – total assist standby/partial	3 6	19 38
Toileting – total assist standby/partial	7 5	44 31
Walking – total assist standby/partial	7 5	44 31
Transfer – total assist standby/partial	8 3	50 19
Incontinence – none bladder bladder/bowel ostomy	7 1 6 2	44 6 38 12

Staff Characteristics

	Registered nurses (n=17)	Nursing assistants (n=18)	Providers/ Owners (n=19)	Case Managers (n=8)
Age (years) – mean (range)	39 (20-57)	34 (19-58)	43 (27-59)	41 (29-55)
Gender (% Female)	83.3	77.8	78.9	75.0
Average # years of experience	12.9	7.5	7.9	11.75
Average # years in that facility	5.1	4.6	7.9	5.8
Average # years of education	15.53	12.94	15.70	16.86
Average # people supervised	11.8 (3-30)	0	21.55 (0-76)	0

2. *Expanded Participation -- Telephone confirmation*

Following analysis of the focused interview data, expanded participation was used to confirm and further describe the themes that were identified in the initial interviews among two groups (registered nurses and case managers), where there were a wider range of themes and greater diversity of opinion. This approach enhanced the validity of qualitative results and ensured appropriate representation from all regions of the state.

Participants were randomly selected to represent one of each group from each region of the state, with six case managers and six registered nurses who were delegating interviewed. Telephone interviews were conducted in which the participants were asked to react to the major themes and comments from the perspectives of registered nurses and case managers, respectively. They were asked to indicate whether they agreed or disagreed with the finding, to make further comments about the finding, and to add any additional perspective to the issues around nurse delegation. Notes of the telephone conversations were written on a data collection tool and incorporated into the interview data set. Results of the Expanded Participation interviews are summarized in Appendix C, Part A-2.

3. *Regional Forums*

The findings were further validated in Regional Forums, which were held in May 1998 in Spokane, Seattle, Wenatchee, and Vancouver. The Regional Forums were well-attended, with a total of 284 attendees across all four meetings, predominately care providers. Consumers and families were somewhat under-represented in the Regional Forums.

The perspectives of each of the groups who participated in the focused interviews (consumers, families, nurses, nursing assistants, providers/owners, and case managers) were presented to the attendees. First, those who were members of each group were asked to comment on the findings from their peers. Then, general comment on each perspective was invited from the audience. Comments were tape-recorded and transcribed for further analysis and incorporation into the interview data set.

B. Questionnaires

Quantitative measures included two major approaches: 1) An instrument designed to assess readiness to implement, satisfaction with nurse delegation, coercion, and confidence in nurse delegation, with modified versions given to registered nurses, nursing assistants, and inspectors/surveyors; and 2) A telephone screening questionnaire designed to assess the prevalence and type of nurse delegation occurring in the state of Washington and to gather general comments about nurse delegation. All quantitative measures also included two open ended questions: 1) What are your greatest concerns about nurse delegation? and 2) What do you think are the benefits of nurse delegation?

1. Readiness to Implement and Satisfaction with Nurse Delegation Questionnaires

The questionnaires were administered to registered nurses and nursing assistants three times, as pre- and post-tests during training, and then as a mailed follow-up at one year after training. The questionnaires were administered once to inspectors/surveyors during a routine training in April 1998, a time after nurse delegation had been implemented. Quantitative and qualitative results of these questionnaires are summarized in Appendix C, Part B-1.

a. Registered nurses

Registered nurses in the state of Washington were offered an optional 2-day workshop to prepare for Nurse Delegation. Two hundred and twenty RN's received this training, and all completed questionnaires at the training. The initial RN sample (n=220) represented the three settings in which nurse delegation is taking place (DD = 25 (12%); Adult family homes = 49 (24%); Assisted Living = 18 (9%); Case manager = 21 (10%); not specified = 107 (45%)). Experience as an RN ranged from 0 to 42 years with an average of 17.4 years. Educational preparation ranged from Associate degree (41%), Diploma (12%), Baccalaureate (31%), to Master's degree (14%). The number of nursing assistants the RNs had supervised averaged 8.21 (SD=13.66), and ranged from 0 to 80, with 50% supervising less than 4 nursing assistants. Years of nursing assistant supervision experience ranged from 0 to 42 years, with an average of 9.38 (SD = 8.33) years. At one year follow-up, 42 responses were returned, representing a 21% return rate of mailed questionnaires.

b. Nursing assistants

As of May 1997, 7158 nursing assistants had attended Nurse Delegation training. The Readiness to Implement and Satisfaction with Nurse Delegation Questionnaires were administered at training sessions, with a target sample of approximately 1000 completed questionnaires with an actual initial sample of 1382. The nursing assistant sample (n=1382) also represented the three settings (DD = 56%; Adult family homes = 29%; Assisted living = 9%; unknown = 6%). The nursing assistants averaged 5.45 years of experience, ranging from 0 to 25 years of experience, with 50% having less than 5 years and 25% having less than 1 and 1/2 years of experience. At one year follow-up, 187 questionnaires were returned, representing a 13.5% return rate. This was not surprising as

over 50% of Registered Nursing Assistants had changed jobs during the interim and could not be reached through their previous work place.

c. Surveyors/Inspectors

The surveyor/inspector sample (n=58) represented the three practice settings (DD = 11%; Adult family homes = 52%; Assisted living = 9%; Adult Family Home/Assisted Living = 20%; Adult Family Home/DD = 8%).

2. Telephone Screening – Early and Late Implementation

Phone calls were made to all licensed facilities in Washington State (Adult Family Homes, Boarding Homes with Medicaid Assisted Living Contracts, and Residences licensed by the Department for Developmental Disabilities). Early implementation was screened between December 1996 and April 1997, and late implementation was screened between April 1998 and July 1998. The potential sample size was 3,000. Early screening included interviews with 1781 providers and late screening included 1501 providers. Results of the telephone screening are presented in Appendix C, Part B-2.

All providers were asked the same set of questions about nurse delegation, quantifying the number of consumers receiving delegated tasks. Providers were also invited to comment on their experience with nurse delegation. Both screenings included providers from all settings and all regions. The size of facility ranged from 1 resident to 400, with 90% having fewer than 6 residents.

Screening Respondents

Region	Early Screening # (%)	Late Screening # (%)
1	331 (20.4%)	198 (13.2%)
2	137 (8.1%)	76 (5.1%)
3	306 (18.0%)	337 (22.5%)
4	400 (23.6%)	277 (18.5%)
5	233 (13.7%)	156 (10.4%)
6	291 (17.1%)	457 (30.4%)
Setting		
Assisted Living	75 (4.2%)	135 (9.0%)
Adult Family Homes	1588 (89.2%)	1211 (80.7%)
DD Residences	117 (6.6%)	150 (10%)

C. Document Review

Document review provided another perspective from which to evaluate the implementation of nurse delegation. Significant documents were collected and analyzed using content analysis to assess implementation, identify themes and explore the variables

of interest. Document review included 1) Surveyor/inspector findings; 2) Minutes, training and field notes from DSHS, DOH, and DDD staff; 3) Incident reports to the Nursing Quality Assurance Commission (Uniform Disciplinary Act Reports), Pharmacy Board, and the Complaint Hot-line; and 4) Nurse Delegation Form audit.

1. Surveyor/inspector observations

All routine DSHS and DDD inspection reports from January 1996 through April 1998 were reviewed for incidents related to nurse delegation. In addition, field observations by surveyors/inspectors in all three settings were collected during the study period. These results are summarized in Appendix C, Part C-1.

2. Minutes, training and field notes from DSHS, DOH, and DDD staff

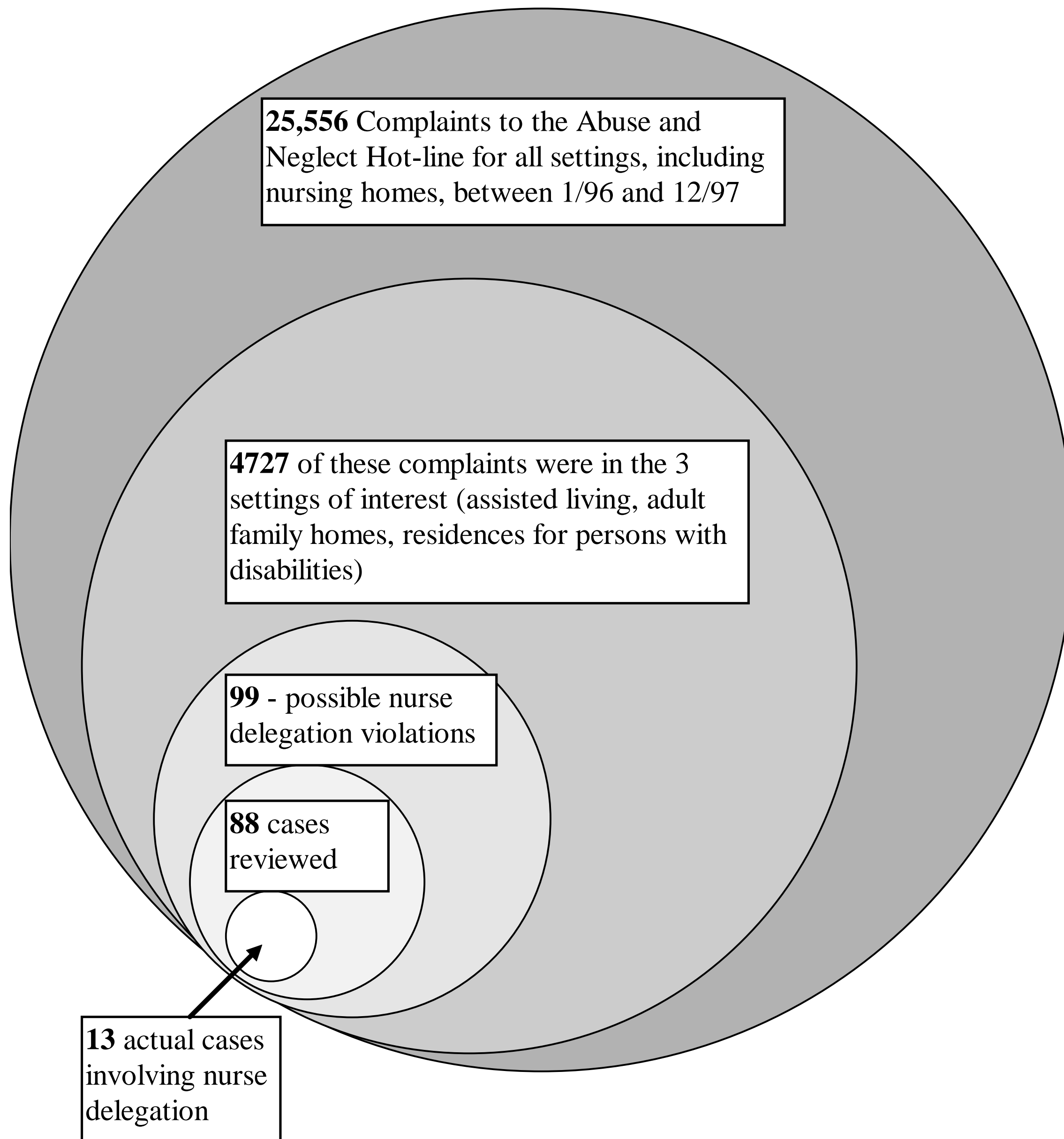
Staff from all three departments provided all documentation of the process of implementation of nurse delegation, from initiation through March 1998. Documentation included meeting minutes, phone logs of inquiry calls, and training notes. A total of 420 comments and inquiries were analyzed. These results are summarized in Appendix C, Part C-2.

3. Incident reports to the Nursing Care Quality Assurance Commission (Uniform Disciplinary Act Reports), Pharmacy Board, and the Complaint Hot-line

All reports made to the Nursing Quality Assurance Commission or the Abuse and Neglect Complaint Hot-Line from January 1996 through December 1997 were reviewed. **Note:** All Nurse Delegation Forms included a toll-free number to call for complaints specific to Nurse Delegation.

The total number of complaints from all sources during this period was 25,556. Those occurring in any of the three settings (DD, AFH, AL) were further reviewed to determine whether nurse delegation was occurring at the time of the complaint in that facility. There were 4727 complaints logged in the three settings of interest. Ninety-nine of these complaints suggested the possibility of a nurse delegation protocol violation, problem, or negative outcome. Four of the complaints did not contain sufficient information in order for state agencies to identify and follow-up on the situation. In several situations, more than one complaint was received on the same case resulting in 43 cases in 1996 and 45 cases in 1997 being identified for case review. These 88 cases were reviewed in depth to determine the nature and severity of the complaint; if it occurred in a facility where nurse delegation protocols were being implemented; the findings of any investigation done; and the final disposition of the case. Disposition of the complaints involving nurse delegation is summarized in Appendix C, Part C-3.

Review of Complaints/Reports to the Abuse and Neglect Hot-line and the Nursing Care Quality Assurance Commission



4. Nurse Delegation Form Audit

Nurse Delegation Forms were audited for compliance with the Nurse Delegation Protocols. The following Nurse Delegation Forms were reviewed:

- Delegation of Nursing Care Task Form
- Checklist for the Delegation of Specific Nursing Tasks Form
- Nursing Care Task Follow-Up Evaluation: Results of Supervision
- Nursing Care Task: Rescinding Delegation

All Forms submitted during December 1997 were reviewed according to standard criteria (completeness and quality of documentation). The audit sample included 47 care plans, 58 forms for rescinding delegation, and 18 medication forms. Audit results are summarized in Appendix C, Part C-4.

IV. RESULTS

A. Implementation of Nurse Delegation: Prevalence

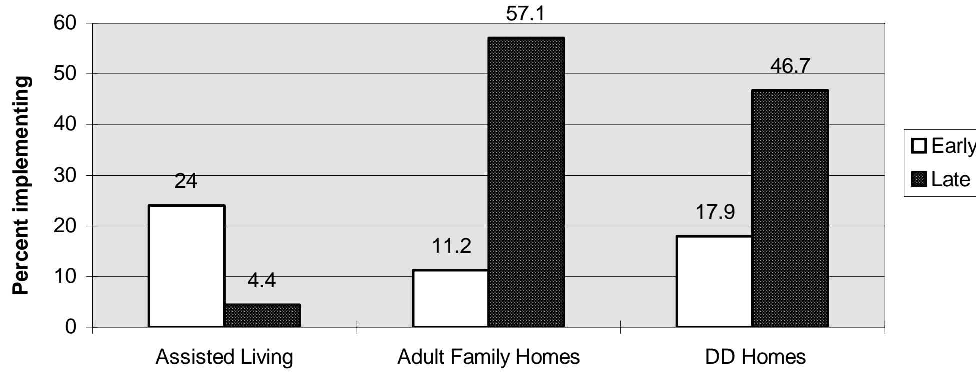
Nurse Delegation was initiated with House Bill 1908, in 1995. The first telephone screening to all licensed facilities in the State of Washington (approximately 3,000) was conducted from December 1996 through April 1997 (see Appendix C, Part B-2). At that time, 12.1% of facilities surveyed had implemented Nurse Delegation, with medication administration being the most common type of delegated task. A higher percentage of assisted living settings (24%) were implementing nurse delegation, compared to 11.2% of adult family homes and 17.9% of residences for persons with developmental disabilities.

By the second telephone screening, conducted between April and July, 1998, the overall rate of nurse delegation had increased to 52.2%, with medication administration remaining the most common delegated task. There was a significant drop in assisted living settings participating in nurse delegation, from 18 facilities (24.4% of the sample interviewed) at first screening, to 6 facilities (4.4% of the sample interviewed) during the second screening. In contrast, there was a marked increase in nurse delegation in both adult family homes and residences for persons with disability.

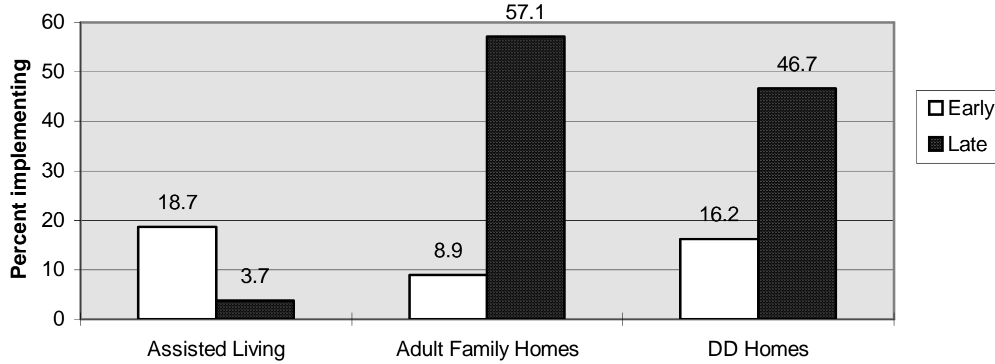
Percentage of Facilities Implementing Nurse Delegation
Early (December 1996 through April 1997) and
Late (April 1998 through July 1998)

Total potential facilities: 3,000	Early sample size: 1781 facilities **% implementing**	Late sample size: 1501 facilities **% implementing**
Total implementing Nurse Delegation	12.1	52.2
Multiple tasks	2.0	10.6
Medications (oral)	9.8	52.2
Medications (eye/ear/nose drops)	4.2	15.8
Clean dressing change	1.2	3.9
Gastrostomy feeding	1.1	1.8
Enemas	1.2	1.9
Suppositories	1.7	3.7
Ostomy care	0.7	1.7
Clean catheterization	0.8	2.4
Blood glucose monitoring	2.0	7.2

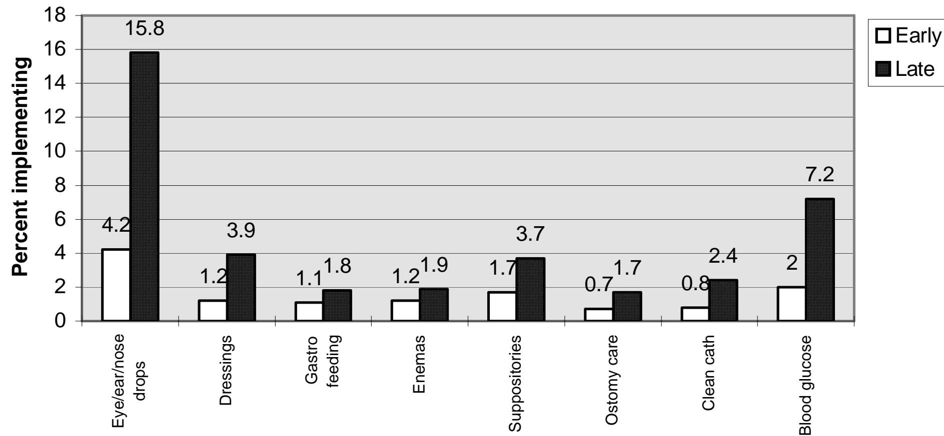
Nurse Delegation Implementation



Oral/Topical Medication Delegation



Task Implementation



B. Summary of General Findings

The major findings of this study can be grouped into four main areas: 1) The process of nurse delegation; 2) Consumer care and quality of life; 3) Regulatory aspects; and, 4) The scope of nursing practice. An overview of the findings follows. Detailed results are summarized in Tables presented in Appendix C.

1. The process of nurse delegation

- The process of Nurse Delegation was cumbersome and confusing to start, but it became easier with experience
- Overall, all parties identify both benefits and concerns, yet most are satisfied with Nurse Delegation
- Cost issues identified included paying for nursing assistant registration and the costs associated with staff turnover and repeated training
- Many implementation, protocol, reimbursement and statutory issues have been modified concurrently with the study
- Training (timing, availability, and logistics) remain challenging for some
- The requirement for 60 day re-evaluation is seen as too frequent in many cases by consumers, families, nurses, nursing assistants, and providers
- There was not evidence of coercion (i.e., being forced to participate in a task that would pose a safety risk), but there was evidence of tension around changing job descriptions and fear nursing assistant jobs might be lost if an employee refused categorically to perform delegated tasks.

2. Consumer care and quality of life

- There was no evidence of significant harm or adverse outcomes for consumers specifically related to nurse delegation
- RN involvement in care planning has increased
- Nurse Delegation has promoted better preparation for nursing assistants
- There is better communication with the consumer and among the care team
- There are improvements in quality of care – with more training, flexibility and timeliness of care for consumers
- The quality of medication administration has improved with training and protocols ensuring appropriate methods of administration
- Consumers and care providers prefer less restrictive environments
- For consumers' quality of life, values include aging in place, having continuity of care and not having to move

- There are issues around self-care and consent in settings for persons with developmental disabilities, particularly for those who can direct their own care
- Prohibition of injection of insulin is a significant barrier to being able to place people in less restrictive environments

3. Regulatory aspects

- There is a general impression among case managers, nurses, and providers of increased access to less restrictive environments
- This type of regulation of care creates tensions, confusion, fear, and potential for different interpretations of the regulations
- Change in one part of the system has implications for other sectors (such as home health and hospice)

4. The scope of nursing practice

- Nurse delegation brought unlicensed and unregulated practice under the supervision of registered nurses -- prior to nurse delegation, unlicensed and unregulated performance of tasks now delegated was widespread.
- RN availability in certain communities, particularly rural areas, is a challenge
- Nurse Delegation offers new practice opportunities for RNs
- Nurses exhibit professional judgment and discretion in determining what and to whom to delegate

C. Patient, nurse, and nursing assistant satisfaction

1. Patient satisfaction

Overall, consumers and families were satisfied with nurse delegation. Information from consumers and families was gathered through in-depth interviews, forum comments, and field notes of comments and inquiries to department staff. Consumers and families focused primarily on the quality of care and the quality of relationships with caregivers, rather than on protocols for care delivery. Despite information and the consent process, consumers and families did not have a clear understanding of the technical aspects of delegation, but articulated that they were more concerned about care being delivered correctly and flexibly by a trusted person than by the professional credentials of the caregiver. Consumers and families identified the redundant paperwork and redundant training associated with the consent process and the 60-day re-evaluation as sources of dissatisfaction with Nurse Delegation.

In settings for persons with developmental disabilities, there was a perception that nurse delegation reduced the status of the person receiving care, made home-like settings more institutional and clinical, and reduced the ability of the person to engage in self-care.

2. Nurse satisfaction

Overall, nurses were moderately satisfied with nurse delegation. Nurse satisfaction was ascertained in several ways, through questionnaires, in-depth interviews with expanded participation, review of comments from nurses during training and implementation, field notes of comments and inquiries to department staff and review of comments made in public meetings such as the Regional Forums.

According to the Readiness to Implement and Satisfaction with Nurse Delegation Questionnaires, nurses who were involved with nurse delegation were moderately satisfied, scoring 2.6 before training, 2.3 after training, and 2.7 after one year of implementing nurse delegation on a question specifically asking about satisfaction (1=very satisfied; 3 = neutral; 5 = very dissatisfied). The overall scale scores (8 items) had a mean item score of 2.31 before training, 1.99 after training, and 2.20 at one year, indicating an overall moderate level of satisfaction with nurse delegation.

In addition to responding to scaled items, RNs were asked to identify benefits and concerns about Nurse Delegation. The major benefits identified were: Positive quality of care, cost savings, improved placement availability, positive changes in RN role, bringing unlicensed and unregulated practice under RN supervision, improved continuity of care, and the benefits of trained staff. The major concerns identified were: Lack of confidence in the ability of nursing assistants to do the tasks, training, and regulatory aspects. At the time of the introductory training, liability and the potential for negative quality of care were major concerns; these had resolved at one year. At one year follow-up, RNs mentioned reimbursement more frequently.

The focused interviews affirmed the moderate satisfaction rating given in the previous data set. In general, nurses highlighted the following sources of satisfaction: More freedom and time to provide care, the potential for RN role development, better communication among the care team, better staff morale, and bringing unlicensed and unregulated practice under the supervision of registered nurses. Sources of dissatisfaction were: the logistics of training, high staff turnover, redundancy and the volume of paperwork.

Finally, feedback from nurses throughout the process in meetings, phone calls to the departments, and in written comments further validated the previous findings of the major sources of both satisfaction and dissatisfaction regarding nurse delegation.

3. Nursing assistant satisfaction

Overall, nursing assistants reported moderate to high levels of satisfaction. Nursing assistant satisfaction was ascertained in several ways, through questionnaires, in-depth interviews with expanded participation, review of comments from nursing assistants

during training and implementation, field notes of comments and inquiries to department staff and review of comments made in public meetings such as the Regional Forums.

According to the Readiness to Implement and Satisfaction with Nurse Delegation Questionnaires, nursing assistants who were involved with nurse delegation were moderately satisfied, scoring 2.6 before training, 1.7 after training, and 2.3 after one year of implementing nurse delegation on a question specifically asking about satisfaction (1=very satisfied; 3 = neutral; 5 = very dissatisfied). The overall scale scores (8 items) had a mean item score of 2.15 before training, 1.65 after training, and 1.90 at one year, indicating an overall moderate to high level of satisfaction with nurse delegation.

In addition to responding to scaled items, nursing assistants were asked to identify benefits and concerns about Nurse Delegation. The major benefits identified were: The opportunity for training, improved quality of care, improved knowledge of medication administration, the positive impact of new standards, improved self-confidence, convenience and time efficiency, improved consumer safety, pride in new responsibilities, having RN supervision, and cost savings. The major concerns identified were: Desiring more training, not feeling confident, liability, the time it takes, RN availability, understanding the protocol, communication, assuring adequate staffing, and feeling that it is the RN's role to do the tasks.

The focused interviews affirmed the moderate satisfaction rating given in the previous data set. Nursing assistants reported the following sources of satisfaction: Better knowledge and self-confidence, more timely care, and the reassurance of training and supervision by a registered nurse. Sources of dissatisfaction were: Paperwork, staff coverage, and the logistics of training.

Finally, feedback from nursing assistants throughout the process in meetings, phone calls to the departments, and in written comments further validated the previous findings of the major sources of both satisfaction and dissatisfaction regarding nurse delegation.

D. Medication errors, including those resulting in hospitalization

This study did not identify any medication errors resulting in hospitalization in settings where nurse delegation was implemented. Because there is no centralized system for reporting medication errors, information was obtained during focused interviews and expanded participation, through forum comments and by auditing surveyor reports and Hot-line complaints. There were no errors reported to the Pharmacy Board during the period of the study. Two delegated medication administration errors by nursing assistants were reported through the Hot-line and closed by the Nursing Care Quality Assurance Commission at case management. The most serious negative patient outcome found in the Hot-line and NCQAC complaint review was pain experienced by a consumer when a pain medication was inappropriately withheld by a nursing assistant. In this case

the nursing assistant's registration was suspended for two years by the NCQAC due to this and related delegation protocol and scope of practice violations.

Isolated reports from registered nurses and surveyors suggest that the most common medication problems in the context of delegation are pharmacy errors (dispensing or documentation), staff filling Medi-sets (rather than a pharmacist), staff giving eye drops or topical medications without delegation, and missed medications. Isolated incidents of right medication/wrong time, and wrong medication or wrong person were reported. In none of the error situations were adverse effects reported. In the incidents cited, the staff making the errors were either counseled and retrained, had delegation rescinded or were discharged/resigned from employment.

According to multiple sources, medication administration has improved with training and protocols, as these have provided specific information about how to administer medications, side effects, and indications for particular consumers. Focused interviews and qualitative data on questionnaires included multiple reports of previous methods of administration that could cause harm, such as crushing time-release pills. The findings suggest that there was widespread unlicensed and unregulated medication administration without supervision prior to nurse delegation.

E. Compliance with required training

In the settings where focused interviews were conducted, there was documentation supporting compliance with required training, but the timing of training is a challenge. Training has been offered throughout Washington state and has resulted in over 7,000 nursing assistants receiving the mandatory training, and 220 registered nurses attending the 2-day Optional training.

Number of nursing assistants Trained

DEPARTMENT	YR 1996	YR 1997	TOTAL
DSHS	1967	2712	4679
DDD	707	1772	2479
TOTALS	2674	4484	7158

The focused interviews revealed that the timing of training in relation to an admission (particularly if the admission occurs on a Friday afternoon), and in the case of staff turnover can be difficult and there may be delays in obtaining the required training for all staff. This dilemma is commonly solved in one of two ways, either qualified staff (licensed or delegated) cover the times when tasks must be completed, or non-delegated staff practice without the required training. RN availability in some communities (especially rural areas) can be a barrier to required training and appropriate delegation. The phone surveys to facilities confirmed the finding that training availability and the logistics of

ensuring all delegated staff have completed the required training in time for care delivery continue to be challenges.

F. Compliance with nurse delegation protocols

In a general sense, nurse delegation protocols are being followed; initially, obtaining consent and specifying potential outcomes were areas of weakness. The Care Plan audit revealed that the appropriate tasks are being delegated and there is RN involvement in the process. Areas of weakness in documentation and protocol included obtaining consent, individualizing the care plan, and providing specific potential outcomes and protocols. Some registered nurses were using pre-printed information (such as medication package inserts) as documentation for side effects, others were creating standardized care plans to facilitate the process.

Focused interviews in the early stages of nurse delegation revealed that the consent protocol was problematic and not consistently completed. The protocol for consent was addressed in the last legislative session, alleviating much of the difficulty and irritation associated with obtaining separate consents for each staff member for each task.

Timing is an issue in implementing the nurse delegation protocols, particularly when an admission is rapid or occurs on a weekend when staff are less available to complete the care planning process. Confusion remains over certain protocol issues, such as medication administration and RN coverage. In addition, there is confusion over interpretive guidelines by regulators, who are not always consistent with the training that was provided to providers.

G. Incidence of harm to patients, including abuse and neglect

There was no evidence of significant harm or adverse outcomes to patients among those receiving nurse delegation. Eighty-eight cases from Abuse Hotline and NCQAC (1996-1997) complaints were reviewed in depth for incidence of harm, including abuse and neglect. Thirteen of the cases occurred in homes where nurse delegation protocols were being implemented. The most serious negative outcome identified through this review was unnecessary pain experienced by a consumer when a pain medication was inappropriately withheld by nursing assistant. There were no hospitalizations, medical complications, injuries or deaths attributable to nurse delegation identified through this review.

Incidents of harm were also reported in some of the remaining 75 cases, in settings where nurse delegation was not being attempted. In at least 24 of these cases unlicensed practices were alleged to be occurring. Unlicensed practices in addition to those that might have been allowed under nurse delegation protocols included insulin administration; medication administration through jejunostomy and gastrostomy tubes; and sterile urinary catheterization. Examples of harm noted in these unlicensed practice

complaints and investigations included nausea, vomiting, potential choking and aspiration related to improper medication administration; abuse due to administration of benzodiazipines (chemical restraints) without a physician order; medication overdoses; insulin complications; and 3 hospitalizations. State agencies (DOH, DSHS, NCQAC) reviewed and/or did additional investigation in these cases resulting in citations and disciplinary actions.

A potential benefit of nurse delegation is the education associated with medication administration and the correction of potentially harmful previous practices.

H. Impact on access to care

There was a general impression from all perspectives (consumers and families, case managers, providers, RNs, and NAs) of improved access to less restrictive environments. Impact on access to care was ascertained in several ways, through questionnaires, in-depth interviews with expanded participation, field notes of comments and inquiries to department staff and review of comments made in public meetings such as the Regional Forums. Benefits of improved access included being able to age in place as functional condition declines; avoiding nursing home stays for certain condition changes; and being able to stay close to family and community as care needs increase.

There has been a significant increase in the implementation of Nurse Delegation, from 12% in early 1997 to 52% in mid-1998, providing more options to consumers in community based settings. According to AASA Caseload trends, there has been a sizable shift since 1993 in the direction of growth in long-term care, with a marked reduction in nursing home consumers and a significant increase in community-residential service options.

I. Impact on patient quality of life

Consumers and family members value less restrictive environments and are willing to assume some risks to have the freedom and privacy afforded them in these settings. Nurse Delegation was seen by some in the developmentally disabled community as reducing quality of life by taking away control. From the perspective of the consumer and his or her family members, the relationship with the caregiver is more important than the professional credential of the caregiver, when quality care is delivered. Consumers value flexibility, convenience, familiarity with the caregiver and the routine, and control over their situations. Consumers and family members want to be assured of safe conditions and high quality care.

Communication with the consumer and family and among the care team has improved with Nurse Delegation. The protocols requiring consent, care planning, and training have shifted the focus to the consumer receiving the care and have allowed individualization.

Staff reported a greater appreciation of the individual needs of consumers and a better understanding of their health histories as a result of the improved care planning process.

Training for nursing assistants has improved skills and instilled a sense of pride in their work, contributing to a more positive work environment and better quality of care, particularly around medication administration.

Persons with developmental disabilities and their caregivers articulated significant concerns with nurse delegation as it relates to the potential for self-care. Particularly among those whose developmental disabilities were physical, with intact cognitive ability, the idea of requiring a professional to direct care that the person him or herself could direct was offensive and demeaning. Nurse Delegation brought about a change in the relationship between the nurse and the consumer in some DD settings, altering the role from one of a direct provider to a supervisor in some instances, and introducing the role as a new element in the care in some instances. Nurse Delegation was seen by some in the developmentally disabled community as reducing quality of life by taking away control.

J. Incidence of coercion in the nurse-delegation process

The study identified no instances of coercion, defined as the threat of losing one's job by refusing to perform an unsafe practice. There were, however, anecdotal reports of tension between nursing assistants and their supervisors as the job descriptions were renegotiated to include nurse delegation as an expectation of the role. This tension was illustrated by comments made at the regional forums and in the focused interviews by nursing assistants that they fear losing their jobs if they categorically refuse to accept any delegated task. There was also one Hot-line complaint from a nursing assistant who reported feeling the threat of job loss when he/she did not want to participate in nurse delegation training or delegated tasks as a personal preference.

In the Readiness to Implement and Satisfaction with Delegation Questionnaires, registered nurses and nursing assistants were both directly asked whether they felt they had a choice in nurse delegation. Both groups indicated that they "moderately agree" with the statement that they have a choice in nurse delegation.

In the early implementation phase, there were 6 calls and inquiries to the Nursing Care Quality Assurance Commission alleging coercion. Three of these calls were from two staff members at the same boarding home. In addition to providing technical assistance, the NCQAC staff referred these complaints to DOH for licensing/survey follow-up and to DSHS for additional technical support. The remaining 3 calls were from anonymous callers refusing to identify themselves or the facility. In all three cases the NCQAC staff provided technical assistance. In one case, the caller was encouraged to submit a written complaint with names so the NCQAC could further investigate.

K. Additional findings

There was more RN involvement in care, and less unlicensed and unregulated practice with Nurse Delegation. Rather than bring higher risk tasks into the settings, Nurse Delegation has actually enhanced the quality and intensity of supervision. The most surprising and significant finding in this study was the extent to which nurse delegation brought unlicensed and unregulated practice under the supervision of the registered nurse. In considering the history of community residential services, developing as a community response to the needs of older and disabled members, rather than from an institutional template, it should not be surprising to find that practices reflect the philosophy of a home-like, low skill environment. Participants of all groups willingly shared their observations that the tasks that were delegated under HB 1908 were already being done in the settings before the law addressed this area of practice.

V. IMPLICATIONS and LIMITATIONS

A. Implications

This study of nurse delegation in the three settings (adult family homes, boarding homes with Assisted Living contracts, and community residences for persons with developmental disabilities) has several implications for nursing practice and community-base care.

1. Current protocols and regulations are confusing to those implementing nurse delegation. In addition, regulatory inconsistencies (such as the definition of medication administration) are a source of difficulty across practice settings. It would be helpful to focus on bringing greater clarity to regulatory language and interpretive guidelines and to provide the necessary training so that providers understand and surveyors/inspectors interpret regulations consistently.

2. The study described considerable professional discretion and judgment of RNs in community-based settings. As an integral part of the nursing process, RNs were conducting assessments and developing plans of care that included supervision of nursing assistants and evaluation of the care. Delegating nurses showed professional judgment and discretion in selecting tasks to delegate and in selecting delegatees, according to the condition of the consumer, their own assessment of the complexity of the task, and their confidence in the ability of the nursing assistant to perform the task safely and correctly. This finding supports providing greater flexibility to RNs in the process of delegation, potentially in determining the time frame for re-evaluation, the tasks to be delegated, and the settings in which to delegate. Specifically, the 60 day re-evaluation is inconsistently completed and may not be necessary in some cases to ensure adequate supervision. Further clarity about expectations of the re-evaluation and possible extension of the re-evaluation period for consumers who are stable and predictable could promote more appropriate supervision. Given the improved

supervision and quality of care that came into being with nurse delegation, it would be reasonable to expand nurse delegation to other community-based settings where RNs can provide assessment and supervision. Because the injection of insulin is a consistent barrier to lighter levels of care for community-based consumers, and other tasks, such as oxygen administration, create similar challenges, it would also be reasonable to re-examine which tasks are allowed to be delegated and to empower RNs to exercise their professional judgment in determining what and to whom to delegate.

3. The roles, responsibilities, and reimbursement of providers of skilled nursing services in community-based settings overlapped and were a source of potential conflict and miscommunication. The situation was further complicated when consumers had both acute and long-term care needs, requiring the involvement of multiple providers. In order to provide comprehensive and efficient care for consumers, it would be beneficial to improve collaboration among home health and hospice nurses providing Medicare services and nurses delegating nursing tasks.

4. Many participants in the study noted the need to better prepare registered nurses to supervise and delegate to nursing assistants in community based as well as other settings. This could be promoted if basic and continuing nursing education programs include and strengthen preparation for supervision and delegation roles of nurses in their curricula.

5. Consumers and providers in the persons with developmental disabilities community highlighted numerous concerns about self-directed care and clearly articulated the conflict between current law and the ability of consumers to maintain control over daily life. It is to be expected with greater consumer awareness that this concern will become more prevalent in the aging community in the future. It is essential that professional groups, legislators, and the departments rethink the definition of self-directed care, including what it means to be disabled, and how does physical disability without cognitive disability relate to nurse delegation.

B. Limitations of the Study

Methods were selected to incorporate multiple sources of data and several methodological approaches, offering the most effective and feasible design strategy for completing the evaluation mandated by House Bill 1908, Section 53.

It was assumed that it was not possible to describe "cause and effect," nor was it realistic to expect findings that were completely representative and generalizable. The research problem was one about which there was little previous information, was strongly linked to the specifics of each practice setting, and was being examined during a time when other changes in the health care system may also have effects on patient well-being, nursing practice, and provider issues.

At the time of the majority of qualitative data collection, only 12% of facilities were implementing nurse delegation. This study therefore reflects the experiences of those who implemented nurse delegation early on, and might be biased towards a heavier emphasis on logistical issues as all parties (those implementing, those administering, and those regulating) developed an understanding of the process.

Rather than conclusions that are "generalizable" to every situation, this study has provided in-depth knowledge about a range of findings based on the current context. By conducting the focused interviews in a variety of sites, the characteristics of each setting were documented, identifying factors that might influence the overall findings.

The study findings reflect the perspectives of those who were willing to participate. Every attempt was made to include as many participants as possible, and some data sets are more comprehensively sampled than others. For example, all nurses who attended the voluntary training participated in the study by completing questionnaires at least once. In calling all the facilities in the state (potential number of 3,000), 1781 agreed to participate in the simple phone screen that determined the prevalence of nurse delegation. This represents a 60% response rate, which is a statistically respectable level of participation, yet nothing is known about those who refused to be a part of the study. In an effort to overcome simple refusals to participate, multiple opportunities to provide input were made available, including review of all calls to complaint or inquiry hot-lines, inclusion of all comments made in writing to the department, and inclusion of all comments made in public meetings. By using multiple methods and data sets, the design addressed the limitation of participation.

In conclusion, the findings provided detailed information from a variety of sources that can be used as a basis for evaluating policy and will serve as a foundation for further, more extensive evaluation if deemed necessary. The prevalence of Nurse Delegation has increased dramatically over the past year. As this practice becomes more widespread, ongoing evaluation of the outcomes of interest will be important, particularly determining whether Nurse Delegation has indeed met the goals of House Bill 1908 to improve access and quality of care in more cost-effective ways.

APPENDICES

Appendix A-1: Variables and Measures

Study Aim	Methods/Measures
1) Patient, nurse, and nursing assistant satisfaction	Readiness to Implement/Satisfaction Questionnaire Focused interviews Forum comments Field notes and inquiries to Departments
2) Medication errors, including those resulting in hospitalization	Incident reports/Hot-line complaints Survey findings Rescinding delegation Focused interviews
3) Compliance with required training	Certificates of Completion Delegation of Nursing Care Task Form
4) Compliance with nurse delegation protocols	Delegation of Nursing Care Task Form Checklist for the Delegation of Specific Nursing Tasks Nursing Care Task Follow-Up Evaluation Form Nursing Care Task: Rescinding Delegation Form Focused interviews
5) Incidence of harm to patients, including abuse and neglect	Nursing Care Task: Rescinding Delegation Form Complaints received at Hot-Line Survey findings Uniform Disciplinary Act findings Focused interviews
6) Impact on access to care	Focused interviews Readiness to Implement/Satisfaction Questionnaire Field notes and inquiries to Departments Forum comments
7) Impact on patient quality of life	Focused interviews Forum comments
8) Incidence of coercion in the nurse-delegation process	Readiness to Implement/Satisfaction Questionnaire Focused interviews Forum comments Complaints received at Hot-Line Field notes and inquiries to Departments

Appendix A-2: Data Sets

Data Set	**Sample and sample sizes**
Focused interviews	78 in-depth interviews (27 AFH, 20 AL, 31 DD settings) with 16 consumers/family members, 17 RNs, 18 nursing assistants, 19 Providers, 8 Case Managers
Readiness to Implement/Satisfaction Questionnaires *(administered at pre and post training and at 1 year to RNs and NAs, one time to surveyors)*	Staff/Pre training/Post training/1 yr Registered nurse/220/202/42 Nursing assistant/1382/1335/187 Surveyors/58
Telephone Screening	12/96-4/97: 1781 facilities (75 AL, 1588 AFH, 117 DD settings) 4/98-7/98: 1501 facilities (135 AL, 1211 AFH, 150 DD settings)
Surveyor/inspector observation	DD: Audit of all inspections from 10/97 - 5/98 DSHS: Audit of all inspections from 1/97 to 6/98
Minutes/training and field notes	420 comments and inquiries
Incident reports	25,556 Complaints, of which 99 were possible nurse delegation violations, 88 cases warranted review, 13 actual cases involving nurse delegation
Nurse Delegation Form Audit	Care plan audit: 47 records Rescinding Delegation: 58 records Medication Change Form: 18 records

Appendix B. Methods

Qualitative methods

Qualitative data were collected and analyzed using Grounded Theory methodology. This method, based in the social sciences, is used for studying complex, interrelated research problems and is particularly useful for examining situations where many perspectives exist and for exploring issues about which little is known (Glaser, 1978; Lincoln and Guba, 1985; Strauss, 1987; Strauss and Corbin, 1990). Grounded theory has been used for organizational and policy related research. Data sources include interviews, observations, documents, and statistical data.

Grounded theory methodology specifies the realm of data collection and guides data analysis leading to evolution of theory. Critical features of grounded theory are theoretical sampling and constant comparative analysis with the development of a coding scheme to account for the data. Theoretical sampling drives sampling decisions so that the full complement of relevant data sources (e.g., incidents, activities, informants) are accounted for in the data collection process. In this study, the aim of theoretical sampling was to sample incidents or events of nurse delegation. The three types of facilities were categorized according to size, intensity of nurse delegation, and region. Facilities were randomly selected from these cells and invited to participate. By selecting facilities based on the three variables believed to have the greatest effect on the findings about Nurse Delegation, diverse sampling of consumers/families, care providers, operators, and case managers was promoted. The unit of analysis was the delegated task, and all participants around that task were invited to be interviewed.

Data were collected through in-depth interviews. Constant comparative analysis incorporated multiple data sources (e.g., field notes, narratives, records) and systematic guidelines for coding the data at consecutively higher levels of abstraction, facilitating conceptual development. Data collection and analysis were therefore iterative and were conducted concurrently as conceptual understanding evolved. The in-depth interviews focused on perceptions of nurse delegation from the perspectives of consumers, families, registered nurses, nursing assistants, and providers. The participants were asked about their understanding of nurse delegation, their experience with it, their perceptions regarding quality of care and risk for consumers, and general satisfaction with nurse delegation. The interviewer used structured interview guides to ensure that the same set of questions were asked for each category of participant. Interviews were tape recorded and transcribed verbatim for analysis. Interviews were conducted in a private place. The investigators audited the interview transcripts and provided procedural feedback to the research associate conducting the interviews.

Data were transcribed and entered into a software program, Nud*ist, that facilitates processing and analyzing data in text form. Text was formatted with every line numbered, then broken down into fragments representing a single idea. Ideas weres

categorized and organized to determine common themes and relationships among ideas. Contributing factors or results of a given idea category were identified. The results of the focused interviews were reported in the form of the major themes and relationships that were evident. Data analysis was conducted following established procedures for constant comparative analysis and Grounded Theory.

The second phase of the focused interviews, Expanded Participation by telephone interviews, enabled a wider group of participants to confirm or refine the findings of the study. Registered nurses and Case Managers were included in this phase of the study because these groups presented the most variability in responses to the initial in-depth interviews. Major themes identified in the focused interviews were presented to the participants and they were asked to respond to the findings, indicating agreement, disagreement, or further insight into the topic. Again, facilities were randomly selected from the categorical cells and invited to participate. For each category of participant, the major themes identified by similar participants was described. The participant was asked how these themes compare with their experiences with Nurse Delegation and for any additional comments regarding the themes or their experiences.

Telephone interviews were tape recorded and transcribed. These comments were analyzed using constant comparative analysis as well as quantifying the extent of agreement with previous findings.

Promoting validity and reliability of the findings

Criteria for reliability and validity of qualitative results differ from traditional quantitative methods. A number of strategies maximize the trustworthiness of the data. Prior to data collection, face and content validity for the use of the interview schedules was established using expert professionals in health care, and social services. Tape recordings of the interviews were transcribed verbatim and spot checked for accuracy of transcription.

A number of controls enhance the reliability and validity of the process of data analysis. Initial qualitative data analysis was conducted primarily by one investigator, then reviewed by a second investigator. Initial categories and themes that were identified were presented to two expert professionals to establish content validity. A sample of raw data and the conceptual categories identified by the investigators was given to an expert professional who was asked to categorize the data. Discrepancies were explored and resolved in order to achieve consensus. Final categories and relationships were presented to a group of participants for review and discussion to ensure accuracy and establish content validity. Finally, procedures and strategies used for collecting, analyzing and reporting data were recorded as procedural field notes so that independent audit was facilitated.

Additional procedures have been included to maximize the trustworthiness and credibility of the data, including an audit trail, member checks, use of multiple data sources, and peer debriefing. Specifics follow:

Audit Trail for Confirmability of the Process. First and foremost, the researchers maintained documentation of all steps of the study, including sampling decisions, recruitment issues, interview notes, coding guides, and steps in analysis. This "audit trail" enables another researcher to examine the process to determine whether appropriate conclusions were reached based on the data collection and analysis procedures. Systematic procedures were followed throughout the data collection and analysis process. By ensuring that the data were processed in a standardized way, it was possible for another researcher to come to the same conclusions from the raw data that were presented.

Member Checks. Credibility of the results was enhanced by having both expert researchers and further participants review the findings and provide feedback. This ensures that conclusions that were reached were not a function of the single researcher's opinion, but were duplicated and recognized by others. Member checks also help during the ongoing analysis to validate developing interpretations and results. Thus member checks can be seen as assisting in both the "product" and the "process" audit of the study.

Use of multiple data sources. The use of multiple informants representing many different aspects and perspectives, strengthens the credibility of the results. In addition, varied data collection methods (e.g., interviews as well as review of nurse delegation forms and complaints about nurse delegation) enhanced both the quality and the quantity of data about nurse delegation. By combining these multiple methods, high risk areas and problems were identified for further scrutiny.

Peer debriefing among the research team during data collection and analysis also enhanced credibility. Regular meetings of the research team during the study provide the opportunity for debriefing to:

1) Probe for biases in ongoing analysis.
2) Clarify the basis of developing interpretations
3) Discuss subsequent steps in sampling and methodological decisions
4) Provide an opportunity for expression of responses or feelings that may be clouding good judgment or preventing emergence of sensible next steps.

Quantitative methods

Data were analyzed using SPSS-PC (The Statistical Package for the Social Sciences), software that facilitates statistical analysis of numerical data. Statistical analysis included descriptives, frequencies, and relationships among variables. As this study was descriptive and no inferential statistical analyses were planned, reliability and validity of the quantitative measures were not relevant.

Standardized instruments were not available to measure the variables of interest, particularly satisfaction with nurse delegation. The Readiness to Implement and Satisfaction with Nurse Delegation Scale was developed, with versions modified for registered nurses, nursing assistants, and Inspector/Surveyors. The psychometric properties of this instrument were examined, indicating a respectable internal consistency reliability (co-efficient alpha ranged from .73 to .86).

Appendix C. Results – Tables

A-1. Focused Interviews: Impressions of Nurse Delegation from Multiple Perspectives

PERSPECTIVE	QUALITY OF LIFE AND CARE	PROTOCOL & IMPLEMENTATION	SATISFACTION WITH DELEGATION
REGISTERED NURSES	• Better communication and care planning • Caregiving staff more knowledgeable; pick up on changes quicker • Care more convenient and flexible • Enhanced RN presence in Adult Family Homes • Change in RN role in some DD settings emphasizing care planning and supervision vs. direct care • In DD, concern about possible misinterpretation of delegated intimate care tasks	• Difficulty getting everyone trained • Training availability • Difficulty with staff turnover • Burden of 24 hr coverage • Increased staff morale • Frustration with paperwork redundancy and volume • Difficulty getting consent for each task and staff member • Initially confusing, but gets easier • Brings unlicensed and unregulated practice under the appropriate supervision of RNs • Did not feel coerced	• Evolving RN role development • More freedom and time for RNs to provide care • nursing assistant over-confidence • Role confusion with Home Health and Hospice RNs

PERSPECTIVE	QUALITY OF LIFE AND CARE	PROTOCOL & IMPLEMENTATION	SATISFACTION WITH DELEGATION
NURSING ASSISTANTS	• Better knowledge of medications, side effects, and correct administration • Able to catch side effects and changes sooner • More timely care; not having to wait for an RN	• Reassured by training and supervision by RN when doing tasks that at times they have done before without supervision • Worried about the logistics of paperwork, staffing and training • Concerned about RN being available on-call • Training availability • Did not feel coerced	• More confident and knowledgeable after training • Eager to do more

PERSPECTIVE	QUALITY OF LIFE AND CARE	PROTOCOL & IMPLEMENTATION	SATISFACTION WITH DELEGATION
CONSUMERS & FAMILIES	• Prefer to stay in least restrictive environment • Don't want to have to move if care needs change • In DD, some perceptions that Nurse Delegation: 1. Takes away ability to self-direct care 2. Reduces status of consumer 3. Makes residence seem less home-like	• Paperwork and training is redundant • Despite information and the consent process, consumers and families did not have a clear understanding of the technical aspects of nurse delegation	• Value relationship with caregiver above credentials when job is being done properly • Notice better communication and more involvement in care planning • In SW Washington, consumers/families compare practice with Oregon regulations and wonder why it is more complicated in Washington

PERSPECTIVE	QUALITY OF LIFE AND CARE	PROTOCOL & IMPLEMENTATION	SATISFACTION WITH DELEGATION
PROVIDERS	• In some cases, can admit and retain consumers because tasks can be delegated • Earlier identification of changes in condition • In DD settings, range of response from Nurse Delegation as interfering with self-directed care as well as opening up more community options	• Challenge of changing nursing assistant job expectations • Costs associated with training, documentation • Training and staffing logistics, availability • Stress and fear about inspections, not knowing what to expect once they have implemented Nurse Delegation • Frustration with paperwork volume, redundancy, consent process & 60 day re-evaluation • RN availability to delegate • Ongoing barrier: limit on insulin injections • Brings unlicensed and unregulated practice under RN supervision	• Relieved that RN is now involved and helps with care • Increased confidence in knowledge of staff • RN owner issues – being held to a higher standard, not reimbursed as well because of dual role • In DD, Nurse Delegation has created changes in RN role, focusing more on regulatory requirements instead of on care

PERSPECTIVE	QUALITY OF LIFE AND CARE	PROTOCOL & IMPLEMENTATION	SATISFACTION WITH DELEGATION
CASE MANAGERS	• Better communication and care planning • Staff are more knowledgeable and pick up on changes quicker • Case manager confidence in quality depends on their knowledge of the provider • In DD settings, perception that nurse delegation interferes with self-directed care • More people get more care in homes; opens up options	• For some, increased workload related to finding correct placement where staff are trained • For some, another piece of the funding package to put together • Brings unlicensed and unregulated practice under RN supervision • Gets easier with time	• Satisfaction with Nurse Delegation because it is good for the consumers

A-2. Focused Interviews: Expanded Participation Interviews

Case Managers

6 participants, one from each region
Satisfaction findings: 100% agreement
Resource findings: 50% had increased work load, 50% said it did not increase work load
100% stated that reimbursement was adequate
33% agreed that putting together funding package was more difficult, 67% do not see nurse delegation as a barrier to putting together funding package
Implementation issues: 100% agreement that it was hard at first, but gets easier, legalized practice, not aware of any coercion. 33% did not think utilization is going up.
Quality of Care: 100% agreement that communication and care planning are improved, staff more knowledgeable, pick up on changes quicker. One case manager had heard of a medication error that occurred outside of nurse delegation. DD case managers expressed desire for self-directed care to be considered and were concerned that nurses brought too much of a medical vs. Social model.

"It is a challenge to get nurses to understand the consumers – 1. Underestimate consumer abilities and 2. Overserve consumer. Nurse sees the disability, case manager has to educate the nurse to the appropriate level of service. Nurses go beyond the bounds of delegation, want to give direct health care which is beyond what delegation was set up to do." "We need to allow consumers to direct staff if consumer is cognitively able."
Access: 2 improved, 2 no change, 1 less access, and 1 delay placement

Registered nurses

6 participants, one from Regions 1,2,5,6 and 2 from Region 3
Satisfaction findings: 90% agreement overall. 100% agreement on dissatisfiers (difficult getting everyone trained, frustration with turnover, frustration with paperwork). 83% agreement with positive satisfiers (more freedom and time, better assessments, higher morale, and better care)
Resource findings: 100% agreement on time doing paperwork, 60 day re-eval, getting consent, and 24 hour coverage as resource issues. One person did not find the time training, scheduling, and reimbursement problematic.
Implementation Issues: 100% agreement that staff were not coerced and that it gets easier with time. One person did not find the paperwork cumbersome, redundant or confusing. One disagreed that unlicensed practice occurred before nurse delegation.
Quality of Care: 100% agreement that communication and care planning are better, staff more knowledgeable and pick up on changes quicker, and that care is more flexible and convenient. Two described medication errors – pharmacy packaging/labelling errors, documentation, meds not on time, forgetting to give medication. None resulted in harm to consumers. DD RN disagreed that she has less time with consumers.
Access: 2 improved access, 4 no change in access

B. Questionnaires

B-1. Readiness to Implement and Satisfaction with Nurse Delegation

a. Registered nurses

Variable (1=very positive, 3 = neutral, 5=very negative)	**Pre-test Mean (SD)**	**Post-test Mean (SD)**	**1 yr follow-up Mean (SD)**
1. What do you think of nurse delegation?	2.61 (1.01)	2.29 (1.04)	2.71 (1.13)
2. What do you think of nurse delegation in your work setting?	2.58 (1.05)	2.46 (1.20)	2.74 (1.31)
3. How willing are you to delegate tasks to nursing assistants?	2.12 (1.11)	2.10 (1.18)	2.34 (1.20)
4. Do you have a choice in deciding how and when to delegate?	1.89 (1.09)	1.46 (.85)	2.60 (1.96)
5. How prepared are you to decide about nurse delegation?	2.60 (1.20)	1.75 (.74)	1.71 (.74)
6. How prepared do you feel to teach nursing assistants to do the tasks safely?	2.60 (1.20)	1.80 (.94)	1.57 (.80)
7. How prepared do you feel to supervise nursing assistants in performing the tasks safely?	2.16 (1.13)	1.85 (1.05)	1.71 (.81)
8. How capable do you believe nursing assistants are of doing the delegated tasks?	2.47 (1.12)	2.24 (1.04)	2.05 (1.13)
TOTAL score	18.47 (6.10)	15.89 (5.58)	17.61 (5.49)
Item means	2.31	1.99	2.20
Sample size	220	202	41
Reliability (alpha)	.86	.83	.78

Registered nurses responses to open-ended questions:

What do you think are the benefits of nurse delegation?
What are your greatest concerns about nurse delegation?

Benefits of Nurse Delegation: RNs

At training (pre and post-tests)

- Positive Quality of Care
- Cost savings (because consumer can be in less restrictive/expensive setting)
- Better placement options
- Positive RN role changes
- Brings unlicensed and unregulated practice under RN supervision
- Improved continuity of care
- Training benefits (nursing assistants better prepared to administer medications, monitor, pick up on changes)

At One Year

- Positive Quality of Care
- Cost savings (because consumer can be in less restrictive/expensive setting)
- Better placement options
- Positive RN role changes
- Bring unlicensed and unregulated practice under RN supervision

Concerns about Nurse Delegation: RNs

At training (pre and post tests)

- Liability concerns
- Lack confidence in abilities of nursing assistants
- Training (availability and logistics of staffing to cover training)
- Negative for Quality of Care
- Regulatory aspects

At One Year

- Documentation concerns
- Lack confidence in abilities of nursing assistants
- Training (availability and logistics)
- Reimbursement (for RN supervision)
- Regulatory aspects

b. Nursing assistants

Variable (1=very positive, 5=very negative)	Pre-test Mean (SD)	Post-test Mean (SD)	1 yr follow-up Mean (SD)
1. What do you think of nurse delegation?	2.55 (.86)	1.70 (.83)	2.25 (1.21)
2. What do you think of nurse delegation in your work setting?	2.47 (.89)	1.89 (.95)	2.42 (1.25)
3. How willing are you to perform delegated tasks?	1.60 (.82)	1.44 (.65)	1.44 (.75)
4. Do you have a choice in deciding whether to perform delegated tasks?	2.23 (1.10)	1.61 (.95)	2.09 (1.31)
5. How prepared do you feel to perform delegated tasks safely?	2.15 (1.01)	1.64 (.72)	1.52 (.78)
6. How capable do you believe you are of performing delegated tasks?	1.90 (1.04)	1.59 (.78)	1.71 (.99)
TOTAL score	12.89 (3.72)	9.87 (3.35)	11.42 (4.33)
Item Means	2.15	1.65	1.90
Sample size	1382	1335	187
Reliability (alpha)	.73	.78	.76

Nursing assistant responses to open-ended questions:

What do you think are the benefits of nurse delegation?

What are your greatest concerns about nurse delegation?

Benefits of Nurse Delegation: Nursing assistants

Pre-test at training	Post-test at training	At One Year
• Training	• Training	• Positive effect on quality of care for consumers
• Improved Quality of Care	• Improved Quality of Care	• Better medication administration
• Positive Process/Standards	• Positive for medication administration	• Training-have more knowledge to do job
• Professional opportunity	• Having RN supervision	• Positive confidence in own ability to do the job
• Improve self-confidence	• Positive process/standards	• Pride in new responsibilities
• Positive for medication administration	• Time efficiency, convenience	
• Time efficiency, convenience	• Improved self-confidence	
• Improved consumer safety	• Improved consumer safety	
• Pride in new responsibility	• Better placement options	
• Cost savings	• Cost savings	

Concerns about Nurse Delegation: Nursing assistants

Pre-test at training	Post-test at training	At One Year
• Training	• Training	• Training-availability, consistency, and staffing to cover for it
• Not confident	• Not confident	• Lack of confidence in abilities of nursing assistants to manage delegated tasks
• Process concerns	• Time concerns	• Concerns about the cost of delegation (not worth it)
• Liability	• Process concerns	• Concerns about quality of life (limits freedom, choice of people with developmental disabilities)
• Cost concerns	• RN availability	• RN availability
• Safety concerns	• Cost concerns	• Excessive documentation
• Protocol concerns	• Quality of care concerns	
• Medication concerns	• Protocol concerns	
• RN availability	• Staffing concerns	
• Communication concerns	• It's RN work	

c. Surveyors/Inspectors

Variable (1=very positive, 5=very negative)	Mean (SD)
1. What do you think of nurse delegation?	2.55 (1.01)
2. What do you think of nurse delegation in your work setting?	2.55 (.99)
3. Do you think RNs/NAs have a choice in deciding whether to perform delegated tasks?	1.91 (1.03)
4. How prepared do you feel to RNs are to delegate tasks safely?	2.53 (1.12)
5. How capable do you believe NAs are of performing delegated tasks?	2.36 (1.21)
TOTAL score	11.82 (4.00)
Item Means	2.36
Sample size	58
Reliability (alpha)	.80

Inspector/surveyor responses to open-ended questions:

What do you think are the benefits of nurse delegation?
What are your greatest concerns about nurse delegation?

Concerns

- Training may not be adequate
- RN Competence
- Regulatory aspects and consistency
- Lack of confidence in abilities of nursing assistants to manage delegated tasks
- Concerns about nursing assistant supervision

Benefits

- Positive for Quality of Care
- Improved continuity of care
- Improved placement options
- Training-nursing assistants better prepared
- Cost savings

B-2. Telephone Screening – Early and Late Implementation

Nurse Delegation Implementation – Early Screening
December 1996 through April 1997 (%)

Total sample size=1781 (Approximately 3,000 potential facilities)	Assisted Living (n=75)	Adult Family Homes (n=1588)	DD homes (n=117)
Total doing ND	24.0	11.2	17.9
Multiple tasks	18.7	1.1	4.3
Medications – oral/topical	18.7	8.9	16.2
Medications – eye/ear/nose drops	17.3	3.4	6.8
Suppositories	5.3	1.3	4.3
Dressings	4.0	0.9	3.4
Gastrostomy feeding	2.7	0.9	2.6
Enemas	1.3	1.1	2.6
Ostomy care	0	0.6	1.7
Clean catheterization	5.3	0.6	0.9
Blood glucose monitoring	10.7	1.4	3.4

Qualitative Comments

Major Themes	# of Comments
Training (availability, cost, staffing to cover)	92
Negative experiences	67
Positive experiences	66
Negative documentation comments	47
Negative cost comments	47
Satisfaction with Nurse Delegation	30
RN availability	28
Dissatisfaction with Nurse Delegation	26
Request for clarification	16
Confusion	15

Nurse Delegation Implementation – Late Screening
April 1998 through July 1998 (%)

Total sample size=1501 (Approximately 3,000 potential facilities)	Assisted Living (n=135)	Adult Family Homes (n=1211)	DD homes (n=150)
Total doing ND	4.4	57.1	46.7
Multiple tasks	1.5	9.5	25.2
Medications – oral/topical	3.7	57.1	46.7
Medications – eye/ear/nose drops	3.0	15.5	29.9
Suppositories	0	2.7	14.7
Dressings	0	3.6	9.3
Gastrostomy feeding	0	1.4	5.3
Enemas	0	2.3	9.7
Ostomy care	0	1.6	4.0
Clean catheterization	0.7	2.2	4.7
Blood glucose monitoring	3.0	7.4	7.3

Qualitative Comments

Major Themes	# Comments
Positive experiences	306
Nurse delegation is unnecessary (non-RN's should be able to delegate, AFH providers should get credit for experience, simple tasks (e.g., aspirin, bandaids, ointment, eyedrops) should not require delegation	203
Negative experiences	82
Cost concerns	83
Ensures better training	64
Too much paperwork	63
Problems with RN availability	42
Promotes better care	36
Over-regulation	35
Hassle/inconvenient	31
Only good for inexperienced or new providers	23
Unclear regulations	21
Putting AFH out of business	15
Prefers unregulated practice	14
Appreciates RN involvement	14
Concerned about RN liability	13

Issues with RN relationship	10

C. Document Review

C-1. Surveyor/inspector observations

Field Observations -- Division for Developmental Developmental disabilities
Audit from 10/97 through 5/98

Isolated observations in the following areas:
Training (2)
nursing assistant Registrations overdue (3)
Guardian signatures on consent forms (5)
Documentation (2)
Availability of consistent RN oversight (4)
Need to implement ND given consumer situation (3)
Staff filling medi-sets (3)
Staff giving eye drops or topical medications without delegation (2)

Field Observations – Department of Social and Health Services
No citations issued during study period

C-2. Minutes, training and field notes from DSHS, DOH, and DDD staff

FIELD NOTES AND INQUIRIES

Sample Size: 420 comments and inquiries
Description of Sample: Comments about nurse delegation noted in meeting minutes, field notes and inquiry reports of calls to NCQAC, DSHS, DDD, and DOH.

Major Theme:	# of Comments:
Protocol	104
Training	74
Regulatory aspects of Nurse Delegation	55
Confusion	19
Consent	16
Negative experiences with Nurse Delegation	14
RN role	11
Staffing	11
Liability	10
Reimbursement	10

C-3. Incident reports to the Nursing Quality Assurance Commission, Pharmacy Board, and Complaint Hot-line

Disposition of the 13 cases involving nurse delegation:

4 DSHS completed investigations:

Case #971010640 -- Inappropriate performance of a delegated task. Technical assistance provided. No Citation issued.

Case #970403066 -- Incomplete ND documentation. Technical assistance provided. No Citation issued.

Case #970706435 -- 1 missing caregiver signature. Technical assistance provided. No violation or citation issued.

Case #970605487 -- Nurse delegation was rescinded due to nursing assistant's inability to perform task correctly.

3 NCQAC Disciplinary Actions related to ND violations:

Case # 961111164 -- RN license suspended indefinitely due to several reasons including acting outside the protocols of nurse delegation.

Case # 970403956 -- NA registration suspended for 2 years for multiple violations related to nurse delegation.

Case # 971010256 -- RN with two complaints. 1 has been closed, the other is still under review by the board.

2 NCQAC Investigations of Alleged ND violations were Closed:

Case # 960504400-Alleged protocol violation

Case # 960807497-Alleged documentation violation

2 Nursing assistant medication errors -- Closed by NCQAC at Case Management ((as unsubstantiated):

Case # 970302686 -- nursing assistant administered medication not ordered

Case # 970909602 -- Resident given wrong medications

1 Allegation of coercion by nursing assistant who reused to do ND and was threatened -- Case #960807811

1 Provider complaint about the cost, the quality of the training, and the process of implementation of nurse delegation.

C-4. Nurse Delegation From Audit

Care plan audit
Sample size: 47 records from all 6 regions

Audit dimension	**Percent (%) in compliance**
Is task on delegated list?	98
Is there a consent in the chart?	96
Are NA names included?	96
Are possible outcomes identified?	46
Is protocol spelled out?	66
Are side effects and actions described?	66
Is procedure spelled out?	50
Is the medication protocol spelled out?	30 customized 19 preprinted forms
Are risks identified in care plan?	44
Is there a determination that person is stable?	91

Form Audit -- Rescinding Delegation

Of 58 records reviewed, 11 showed rescinding Nurse Delegation. Documentation was present in all 11 cases, and no negative outcomes were identified.

Reasons for rescinding:

- Discharged (3)
- Staff turnover (5)
- Consumer improved (2)
- Delegating RN not available (1)

Medication Change Form Audit
Sample size: 18 records reviewed

Audit dimension	Percent (%) compliance
Was medication change verified with MD?	56
Was consumer condition documented?	67
Was form signed by RN and nursing assistant?	56
Is teaching about action and side effects documented?	67 customized 11 preprinted

REFERENCES

American Nurses Association (1996). Registered Professional Nurses & Unlicensed Assistive Personnel, 2nd Ed. Washington D.C.: American Nurses Publishing.

Bowers, B.J. (1988). Grounded Theory. In Sarter, B. Editor. Paths to Knowledge: Innovative Research Methods for Nursing. New York, NY: National League for Nursing.

Brent, N.J. (1993). Delegation and supervision of patient care. Home Healthcare Nurse 11(4), 7-8.

Downe-Wamboldt, B. (1992). Content analysis: Method, applications and issues. Health Care for Women International 13, 313-321.

Just, G., DeYoung, S., and VanDyk, R. (1995). Assisted living: Challenges for nursing practice. Geriatric Nursing 16(4), 165-8.

Glaser, B. 1978. Theoretical Sensitivity. Mill Valley: Sociology Press.

Harris, M. D. (1993). Competent, supervised unlicensed personnel will contribute to high-quality in-home health care. Home Healthcare Nurse 11(6), 55-6.

Kane, R.A., O'Connor, C.M., and Baker, M.O. (1995). Delegation of Nursing Activities: Implications for Patterns of Long-Term Care. Washington, D.C.: American Association of Retired Persons.

Krainovich-Miller, B., Sedhom, L.N., Bidwell-Cerone, S., Campbell-Heider, N., Malinski, V.M., and Carter, E. (1997). A review of nursing research on the use of unlicensed assistive personnel (UAP). Journal of the New York State Nurses Association 28(3), 8-15.

Lincoln, Y. S. and Guba, E. G. (1985). Naturalistic Inquiry. Newbury Park, CA: Sage.

Strauss, A. L. 1987. Qualitative Analysis for Social Scientists. Cambridge: Cambridge University Press.

Strauss, A. and Corbin, J. (1990). Basics of Qualitative Research: Grounded Theory Procedures and Techniques. Newbury Park, CA: Sage.