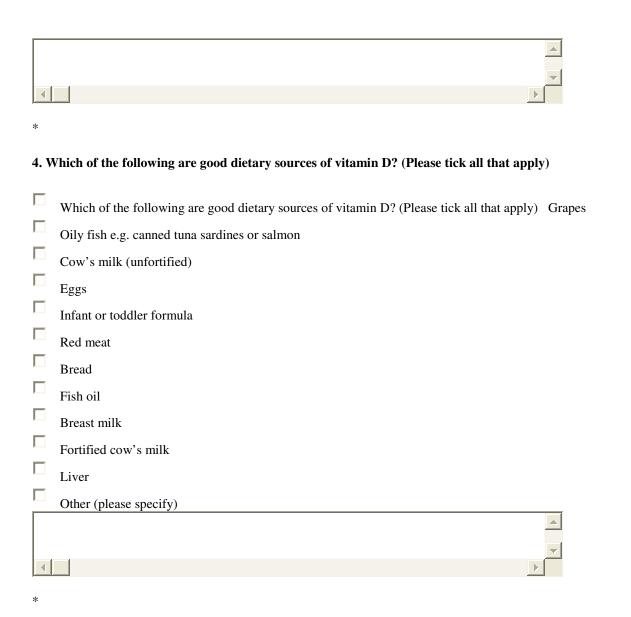
In this survey we would like to find out about health care professionals knowledge of Vitamin D.

Try to be as honest as possible, all responses are confidential and anonymous. No personal details are collected which can identify you. We do ask about your profession and general area of work i.e. hospital, community or private practice but you are not required to answer these questions if you feel they could identify you or are uncomfortable answering them. The overall results of the survey are going to presented at a symposium for health care professionals later this year for which you will be provided details about at the end of the survey. The findings may be written up for publication if appropriate.

If you would like any further details prior to completing the questionnaire please contact either Dr Cath Conlon (c.conlon@massey.ac.nz) or Dr Pam von Hurst (p.r.vonhurst@massey.ac.nz) from Massey University, New Zealand

1. V	what do you think is the single most important source of vitamin D for average New Zealanders? (Please tick only one option)
Enom	What do you think is the single most important source of vitamin D for average New Zealanders? (Please tick only one option) Manufactured in the skin a sunshine
	ii sunsiine
	Natural food sources
	Fortified food products
	Supplements
	Other (please specify)
1	
*	
2. W	What are the roles of vitamin D in the body? (Please tick as many as apply)
	What are the roles of vitamin D in the body? (Please tick as many as apply) Vitamin D aids with the absorption of Calcium
	Vitamin D is an antioxidant
	Vitamin D is needed for bone development and mineralisation
	Vitamin D aids with immune system function

	Vitamin D is needed for blood clotting
	Other (please specify)
4	
*	
3. V	Which of the disease states listed below are associated with low levels of vitamin D (Please tick as many as you know apply)
	Which of the disease states listed below are associated with low levels of vitamin D (Please tick as many as you know apply) Breast Cancer
	Prostate Cancer
	Skin Cancer
	Type 1 diabetes
	Inflammatory bowel disease
	Multiple Sclerosis
	Rheumatoid arthritis
	Depression
	Renal Disease
	Gallstones
	Heart disease
	Rickets
	Osteoporosis
	Other (please specify)



5. Which of the following are risk factors for vitamin D deficiency? (Please tick all that apply for each group)

	During Pregnancy/Lactation	Du	ring Infancy/Childhood
Exclusion of dairy products	Which of the following are risk factors for vitamin D deficiency? (Please tick all that apply for each group) Exclusion of dairy products During Pregnancy/Lactation		During Infancy/Childhood
Dark skin	Dark skin During Pregnancy/Lactation		During Infancy/Childhood
Being housebound	Being housebound During Pregnancy/Lactation		During Infancy/Childhood
Having multiple pregnancies	Having multiple pregnancies During Pregnancy/Lactation		During Infancy/Childhood
Living in the South Island of New Zealand	Living in the South Island of New Zealand During Pregnancy/Lactation		During Infancy/Childhood
Covering the skin for cultural or religious reasons	Covering the skin for cultural or religious reasons During Pregnancy/Lactation		During Infancy/Childhood
Being born prematurely	Being born prematurely During Pregnancy/Lactation		During Infancy/Childhood
Gender	Gender During Pregnancy/Lactation		During Infancy/Childhood
Having a mother who is vitamin D deficient	Having a mother who is vitamin D deficient During Pregnancy/Lactation		During Infancy/Childhood
Not being reguarly exposed to sunlight	Not being reguarly exposed to sunlight During Pregnancy/Lactation		During Infancy/Childhood
Exclusive breast feeding	Exclusive breast feeding During Pregnancy/Lactation		During Infancy/Childhood
Formula feeding	Formula feeding During Pregnancy/Lactation		During Infancy/Childhood
Being born with a high birth weight	Being born with a high birth		During Infancy/Childhood

	v	During Pregnancy/Lactation veight During Pregnancy/Lactation	During Infancy/Childhood
None of the above		None of the above During Pregnancy/Lactation	During Infancy/Childhood
Don't know		Don't know During Pregnancy/Lactation	During Infancy/Childhood
		<u></u>	
Other (please specify)		<u> </u>	
*			
6. Do you think that there is enough info	rmation about vitamin D available for:		
_	Yes		No
Health professionals D vita	o you think that there is enough informat amin D available for: Health professional	ion about s Yes	No
Clients	Clients Yes		No
Parents	Parents Yes		No
please comment if appropriate			
2. Current recommendations for Vitami	n D		
*			33%
T			
1. Which of the following is recommended	ed to help prevent vitamin D deficiency	in infants and young children? (Pleas	se tick all that apply)
Which of the following is recommend time in the sun each day during pregnancy Infant spending time in the sun	led to help prevent vitamin D deficiency i	n infants and young children? (Please ti	ck all that apply) Mother spending

□ □ *	Taking a vitamin D supplement Don't know
2. D	uring which times in summer should time be spent in the sun to allow synthesis of vitamin D? (Please tick.)
C C C *	During which times in summer should time be spent in the sun to allow synthesis of vitamin D? (Please tick.) Before 12pm and after 5pm Before 11am and after 4pm Before 10am and after 2pm Unsure
3. W	That other advice should be given to parents when discussing sun exposure for infants and toddlers in relation to vitamin D? (Please tick all that ly.)
Sun	What other advice should be given to parents when discussing sun exposure for infants and toddlers in relation to vitamin D? (Please tick all that apply.) protection measures (e.g. wearing a hat, wearing sun block, seeking shade) should be followed between 11am and 4pm.
	Only expose your baby to sunlight through a window. Only expose your baby to sun while he/she is being exclusively breast fed. Excessive sun exposure can lead to increased risk of skin cancer.
*	None of the above What is the current recommendation regarding vitamin D supplementation in infants and toddlers? (Please tick.)
vitar	What is the current recommendation regarding vitamin D supplementation in infants and toddlers? (Please tick.) All exclusively breast fed infants require nin D supplementation All formula fed infants require vitamin D supplementation
	· · · · · · · · · · · · · · · · · · ·

	Only infants and toddlers at increased risk of deficiency may require vitamin D supplementation
	No New Zealand infants or toddlers require vitamin D supplementation
*	Unsure
5. A	re you aware of any vitamin D supplements for infants and toddlers available in New Zealand?
	Are you aware of any vitamin D supplements for infants and toddlers available in New Zealand? Yes No
If ye	es, can you name the supplement
*	
6. D	o any of the multiple vitamin and mineral supplements designed for women to take during pregnancy contain vitamin D?
	Do any of the multiple vitamin and mineral supplements designed for women to take during pregnancy contain vitamin D? Yes
	Don't know
7. If	yes, will pregnant women meet their requirements for vitamin D from supplements alone?
	If yes, will pregnant women meet their requirements for vitamin D from supplements alone? Yes No Don't know
Hea	lth Care Professionals knowledge about Vitamin D

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Exit this survey

3. In New Zealand

Plea *	se answer true, false or unsure for the following statements related to New Zealand		
1. S	kin cancer prevention messages make it difficult to get messages about vitamin D across		
	Skin cancer prevention messages make it difficult to get messages about vitamin D across True False		
*	Unsure		
2. P	2. People living in the South Island are more at risk of vitamin D deficiency than those living in the North Island		
© © © *	People living in the South Island are more at risk of vitamin D deficiency than those living in the North Island True False Unsure		
3. Iı	3. In New Zealand we are seeing a re-emergence of rickets in children		
C C *	In New Zealand we are seeing a re-emergence of rickets in children True False Unsure		

50%

	People with dark skin e.g. Maori and Pacific Island people need to spend longer in the sun to synthesise adequate vitamin D. True
	False
*	Unsure
5. E	xposure to sunlight through a window is just as effective as outdoor sun exposure in relation to vitamin D synthesis.
	Exposure to sunlight through a window is just as effective as outdoor sun exposure in relation to vitamin D synthesis. True
	False
*	Unsure
6. E	xposure to sunlight through a window is safer than outdoor sun exposure.
	Exposure to sunlight through a window is safer than outdoor sun exposure. True
*	False Unsure
7. T	he amount of time required to be spent in the sun to allow synthesis of adequate vitamin D depends on the amount of skin exposed.
	The amount of time required to be spent in the sun to allow synthesis of adequate vitamin D depends on the amount of skin exposed. True False
*	Unsure
8. S	eason affects the amount of time needed in the sun to synthesise adequate vitamin D.
	Season affects the amount of time needed in the sun to synthesise adequate vitamin D. True

	False
*	Unsure
	n summer, parents are recommended to expose baby's face and arms to 5 (for light skin) to 20 minutes (for dark skin) of direct sunlight per day ore 11am and after 4pm.
	In summer, parents are recommended to expose baby's face and arms to 5 (for light skin) to 20 minutes (for dark skin) of direct sunlight per day before n and after 4pm. True False
*	Unsure
10.	During winter and spring infants and toddlers should spend some time outside in the sun to maintain vitamin D levels.
	During winter and spring infants and toddlers should spend some time outside in the sun to maintain vitamin D levels. True False
*	Unsure
11.	Most pregnant women will achieve an adequate vitamin D status in summer through incidental sun exposure outside peak UV times.
C C *	Most pregnant women will achieve an adequate vitamin D status in summer through incidental sun exposure outside peak UV times. True False Unsure

12. Between October and March pregnant and lactating women are recommended to expose their face and arms to 5-20 minutes of sunshine per day.

	Between October and March pregnant and lactating women are recommended to expose their face and arms to 5-20 minutes of sunshine per day.	True
	False	
*	Unsure	
13.	Deliberate sun exposure during peak UV times is recommended for pregnant and lactating women.	
	Deliberate sun exposure during peak UV times is recommended for pregnant and lactating women. True	
	False	
*	Unsure	
14.]	During winter vitamin D status may drop below adequate levels	
	During winter vitamin D status may drop below adequate levels True False	
	Unsure Prev Next	
	lth Care Professionals knowledge about Vitamin D this survey	
4. Y	our current practice	
		67%
*		07%
1. A	are you concerned that some of your clients/patients may be vitamin D deficient?	

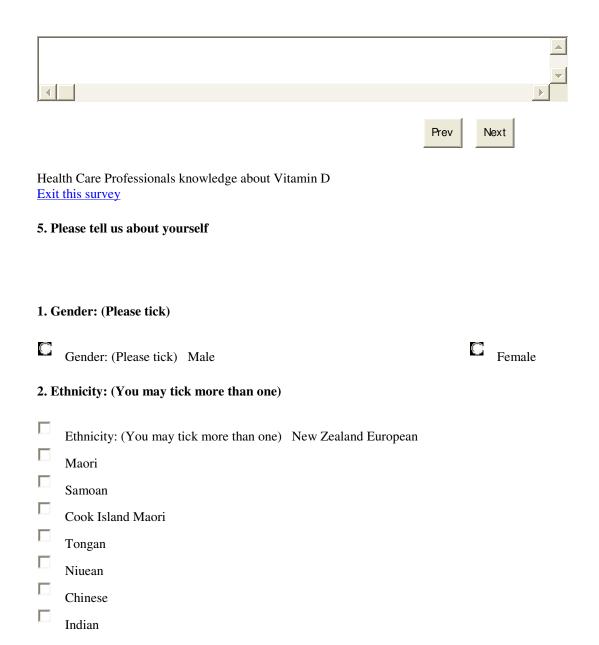
	Are you concerned that some of your clients/patients may be	pe vitamin D deficient? Yes	
O	No		
*	Not relevant		
2. I	f you were concerned about vitamin D deficiency in a pre	gnant women or a baby/child what advice woul	d you give? (Please tick all that apply)
		Pregnant women	Baby or child
I do	on't give advice on vitamin D deficiency	If you were concerned about vitamin D deficiency in a pregnant women or a baby/child what advice would you give? (Please tick all that apply) I don't give advice on vitamin D deficiency Pregnant women	Baby or child
Tak	se a vitamin D supplement	Take a vitamin D supplement Pregnant women	Baby or child
Inc D	reased intake of foods which are good sources of vitamin	Increased intake of foods which are good sources of vitamin D Pregnant women	Baby or child
Inc	reased sun exposure	Increased sun exposure Pregnant women	Baby or child
То	have a blood test to measure vitamin D status	To have a blood test to measure vitamin D status Pregnant women	Baby or child
То	take cod liver oil capsules	To take cod liver oil capsules Pregnant women	Baby or child
Ref	er to a specialist	Refer to a specialist Pregnant women	Baby or child
Doi	n't know	Don't know Pregnant women	Baby or child
			$\overline{\mathbf{v}}$
Oth	er (please specify)		

•	
3. D	o you feel confident that you would recognize the signs and symptoms of vitamin D deficiency in infants and toddlers?
vitar	Do you feel confident that you would recognize the signs and symptoms of No min D deficiency in infants and toddlers? Yes
4. H	low many actual or suspected cases of vitamin D deficiency have you encountered over the past 5 years?
	How many actual or suspected as of vitamin D deficiency have you buntered over the past 5 years?
5. H	low were these cases managed?
	How were these cases managed? Provided all management of the case myself Referred patient to specialist/hospital Not applicable – haven't seen any such cases. Other (please describe)
6. V	Which of the following treatments would you use as a first-line treatment for rickets? (Please tick all that apply)
	Which of the following treatments would you use as a first-line treatment for rickets? (Please tick all that apply) Vitamin D supplements Calcium supplements

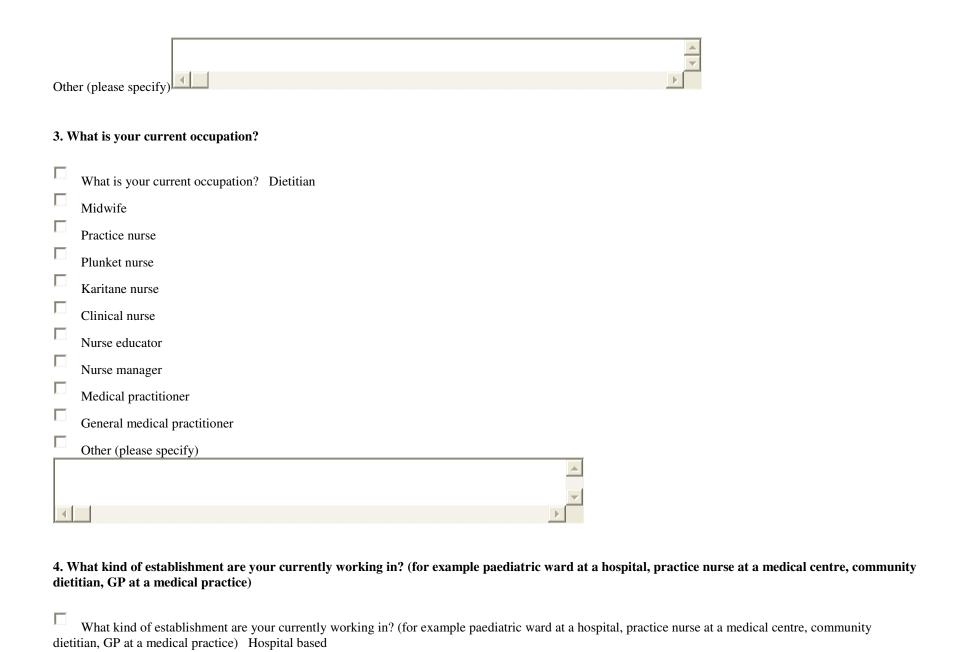
Dietary change to include more calcium Dietary change to include more vitamin D Increased sun exposure Other (please specify)			
Prev	/ Next		
Health Care Professionals knowledge about Vitamin D Exit this survey 4. Your current practice			
*		67%	
1. Are you concerned that some of your clients/patients may be vitamin D deficient? Are you concerned that some of your clients/patients may be vitamin D deficient? Yes No No Not relevant This question requires an answer.			
2. If you were concerned about vitamin D deficiency in a pregnant women	n or a baby/child what advice would you give? (F Pregnant women	Please tick all that apply) Baby or child	

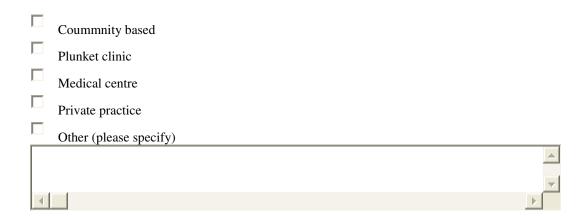
	Pregnant women	Baby or child
I don't give advice on vitamin D deficiency	If you were concerned about vitamin D deficiency in a pregnant women or a baby/child what advice would you give? (Please tick all that apply) I don't give advice on vitamin D deficiency Pregnant women	Baby or child
Take a vitamin D supplement	Take a vitamin D supplement Pregnant women	Baby or child
Increased intake of foods which are good sources of D	Increased intake of foods which are good sources of vitamin D Pregnant women	Baby or child
Increased sun exposure	Increased sun exposure Pregnant women	Baby or child
To have a blood test to measure vitamin D status	To have a blood test to measure vitamin D status Pregnant women	Baby or child
To take cod liver oil capsules	To take cod liver oil capsules Pregnant women	Baby or child
Refer to a specialist	Refer to a specialist Pregnant women	Baby or child
Don't know	Don't know Pregnant women	Baby or child
Other (please specify)	<u></u>	
*		
This question requires an answer.		
3. Do you feel confident that you would recognize th	ne signs and symptoms of vitamin D deficiency in infants and tod	dlers?
Do you feel confident that you would recognize the vitamin D deficiency in infants and toddlers? Yes	he signs and symptoms of No	
This question requires an answer.		

4. H	ow many actual or suspected cases of vitamin D deficiency have you encountered over the past 5 years?
	How many actual or suspected so of vitamin D deficiency have you countered over the past 5 years?
5. H	ow were these cases managed?
	How were these cases managed? Provided all management of the case myself Referred patient to specialist/hospital Not applicable – haven't seen any such cases. Other (please describe)
6. V	which of the following treatments would you use as a first-line treatment for rickets? (Please tick all that apply)
	Which of the following treatments would you use as a first-line treatment for rickets? (Please tick all that apply) Vitamin D supplements Calcium supplements Dietary change to include more calcium Dietary change to include more vitamin D Increased sun exposure Other (please specify)
	Care (prease speed)



83%





5. How many years experience do you have?



How many years experience do you have?

6. Please state your formal qualifications and any field of speciality



Please state your formal qualifications and any field of speciality

7. If you would like to comment on anything concerning vitamin D please feel free to do so

